DOCUMENT RESUME

ED 447 543 CS 510 460

TITLE	Proceedings of the Annual Meeting of the Association for Education in Journalism and Mass Communication (83rd, Phoenix, Arizona, August 9-12, 2000). Media Management and Economics Division.
INSTITUTION	Association for Education in Journalism and Mass Communication.
PUB DATE	2000-08-00
NOTE	240p.; For other sections of this proceedings, see CS 510 451-470.
PUB TYPE	Collected Works - Proceedings (021)
EDRS PRICE	MF01/PC10 Plus Postage.
DESCRIPTORS	Audience Analysis; *Change Agents; Higher Education; Journalism Education; Journalism Research; Mergers; News Reporting; *Newspapers; Television
IDENTIFIERS	Cellular Telephones; *Technology Utilization; Weekly Newspapers

ABSTRACT

The Media Management and Economics Division section of the proceedings contains the following nine papers: "Weekly Newspaper Industry: A Baseline Study" (David C. Coulson, Stephen Lacy and Jonathan Wilson); "News Hole Sizing Policies at Nondaily Newspapers" (Ken Smith); "The Influence of Timing of Market Entry on Competition in Local Cellular Telephone Markets" (Hugh S. Fullerton); "How Magazines Covered Media Companies' Merger: A Case of the Evolution of Time Inc." (Jaemin Jung); "Predicting Digital Cable Adoption: Who Will Upgrade to Digital Cable, and How Soon?" (Myung-Hyun Kang); "Looking for the Right Partners in the Information Era: A Longitudinal Study of Acquisition Strategies by the Communications Industries" (Jack C. C. Li); "The Relationship Between What Managers Do and How Newsroom Workers Respond in Times of Change" (George L. Daniels); "Using Audience Turnover to Reveal the 'Double Jeopardy' Effect in Television Daypart Ratings Performance" (Walter S. McDowell and Stephen Dick); and "Great Expectations: Revealing a Placebo Effect in Brand Equity Evaluations of Network News Reporting" (Walter McDowell and Steven J. Dick). (RS)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 447 543

Proceedings of the Annual Meeting of the Association for Education in Journalism and Mass Communication (83rd, Phoenix, Arizona, August 9-12, 2000). Media Management and Economics Division.

CS 510 460

U.S. DEPARTMENT OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

J. McGill

BEST COPY AVAILABLE

RECEIVED

Media Management & Economics Division

Weekly Newspaper Industry:

A Baseline Study

By

David C. Coulson
Professor
School of Journalism
University of Nevada, Reno
Reno, NV 89557-0040
775/784-6898
coulson@unr.edu

Stephen Lacy
Professor
School of Journalism
Michigan State University
East Lansing, MI 48824-1212
517/355-1520
slacy@msu.edu

Jonathan Wilson
Graduate Student
School of Journalism
University of Nevada, Reno
Reno, NV 89557-0040
775/784-1790
jwilson@unr.edu

Presented at the annual convention of the
Association for Education in Journalism & Mass Communication
in Phoenix, August 2000

ABSTRACT

Weekly Newspaper Industry:

A Baseline Study

This is the first study to examine important elements of the weekly newspaper industry. It will serve as a baseline for analyzing long-term changes in the business. A stratified random sample of 1,027 weekly newspapers was used. The industry was found to exhibit a great deal of variation in type of ownership, type of circulation, geographic location and day of publication. These variations affect advertising rates, advertising cost per thousand and circulation.

Weekly Newspaper Industry:

A Baseline Study

Ever since television emerged in the late 1940s, daily newspapers have experienced a decline in household penetration.[1] Initially, the daily newspaper industry took comfort in rising circulation, even though that circulation did not keep up with population growth. Then in the late 1980s, even that comforting fact ceased to be true.[2]

The weekly segment of the industry has experienced the opposite trend. Weekly newspapers have thrived since the 1960s, just as people bought fewer dailies. Weekly newspaper circulation tripled between 1965 and 1998 to 74.3 million.[3]

Despite the growth in weeklies, media scholars have tended to ignore them. Unlike the daily newspaper industry that has been described in published research,[4] no published studies have looked at the extent and nature of the entire weekly newspaper industry. This failure seems odd because people obviously are interested in reading weeklies and because there is evidence that weeklies and dailies compete for readers.[5] In addition, weeklies long have been competitive with each other.[6]

Because of strong readership weeklies have become attractive properties, with newspaper groups rapidly buying them. Some of these acquisitions involve groups with just weeklies, and others

are by groups that also own dailies.[7] The decline of competition through acquisitions raises public policy issues. Will increased concentration of weekly newspapers adversely affect their quality and reduce their public service?

Such issues cannot be adequately addressed without a clear picture of the weekly newspaper industry. This is the first study to describe important elements of the business and to examine whether they vary by ownership, type of circulation, geographic area and publication cycle. It will serve as a baseline for analyzing long-term changes in the weekly newspaper industry.

Background

Changes in the newspaper industry have made weeklies desirable properties. Daily publishers see weeklies as a way to increase penetration in surrounding markets and to offer more flexible advertising packages. Many of the targeted markets will not support a second daily newspaper. Weeklies often have penetration in the suburban markets that the dailies have not been able to duplicate or have been losing. This situation makes buying out suburban weeklies cheaper and less risky than a start up.[8]

Although no systematic studies of the entire weekly newspaper industry are available, the trade press has provided several examples of the acquisition habits of existing newspaper companies and the reasons behind those acquisitions. Rapid sales of larger daily newspapers during the 1980s left few such acquisition targets by the 1990s. As a result, groups turned to buying weeklies,

especially in the suburbs. Weekly newspapers have slimmer profit margins than dailies but are cheaper to acquire.[9]

The demand for weeklies has pushed up prices. When the trend began in the mid-1980s, buyers paid roughly equal to a weekly's annual revenues. As the market heated up, so did prices. Successful weeklies sell for six to eight times earnings. But multiples of eight to 10 are not uncommon.[10]

As sales of weekly newspapers accelerate, they often involve entire groups of weeklies. In 1998, 500 of the nation's nearly 8,200 weeklies changed hands in 160 different transactions.[11]

During the past decade about two thirds of the purchases of weekly newspaper groups have involved a daily in the same market. In late 1997 there were four major deals where groups of weeklies with a total of 56 papers were bought by newspaper groups that owned nearby dailies.[12]

It is estimated that from half to two thirds of weekly newspapers are group owned. More than 900 weeklies are owned by the 10 largest weekly newspaper groups. The top 25 own 1,388 weeklies. The listing includes 10 groups that also are among the top 25 daily newspaper groups.[13]

Although some groups consist of more than 100 daily and weekly newspapers, others comprise only two or three papers owned by an individual or family. Many weekly groups are regional, focusing on the suburban areas of major metropolitan markets or several rural counties.[14]

By consolidating printing and billing operations and covering a particular geographic area, groups are able to create more competitive and attractive packages for advertisers. The goal is to achieve economies of scale through a combination of reduced costs, better penetration and more advertising revenues.[15]

Increasingly, weeklies are reaching every household in their coverage area through some sort of free-distribution arrangement that supplements paid circulation. Free circulation weeklies are more likely to be part of a newspaper group. Because the group-owned weekly can offer an advertiser larger circulation through combination rates, the paper can make up in advertising revenue what it does not earn in subscription income.[16]

Competition Among Weeklies and Dailies

Recent research about the newspaper industry indicates that weeklies are competitive with dailies and competitive among themselves. A 2000 study of 381 U.S. counties found that umbrella competition for household penetration among weekly and daily newspapers occurs outside metropolitan areas. Only three of the four layers of the umbrella model -- metro dailies, non-metro dailies and weekly newspapers -- were used because suburban dailies only exist around metropolitan areas.[17]

Metropolitan and non-metropolitan dailies were found to be acceptable substitutes for some readers. Weeklies and non-metro dailies also were substitutes for some readers, with readers more likely to substitute dailies for weeklies than vice versa. There was no relationship between the penetration of metro dailies and

weeklies. However, as the number of metropolitan dailies in a county increased, the paid and total penetration of weeklies declined.[18]

The national sample confirmed the findings of the only previous study to examine the relationship between the penetration of dailies and weeklies in non-metropolitan areas. A study of Michigan found that the strongest competition existed between non-metro dailies and weeklies This competition increased during the 1980s.[19] The strength of the relationship was greater than that in the national study, probably because fewer controls were used.

The results of a survey of newspaper executives at daily and weekly newspapers in seven Southwest metropolitan areas are consistent with umbrella theory. Weekly publishers perceived competition from both large and small dailies as significant. Weeklies were not seen as serious competitors by the executives of metropolitan dailies.[20]

A couple of studies have examined the impact of weekly competition on advertising prices and linage. Wisconsin weeklies showed a high positive correlation between circulation and advertising rates.[21] No measure of competition was significantly correlated to advertising rates. However, cost per thousand was positively correlated with two measures of competition. Similar results found in Michigan weeklies were compatible with studies of daily newspapers. The evidence suggested that cost per thousand may be a better measure of competition than the absolute rate.[22]

Despite evidence that competition among weeklies and among weeklies and dailies can affect circulation and advertising prices, concerns about monopolistic practices have eased as competition from non-print media flourishes. Not long ago the purchase of nearby weeklies by a metropolitan daily might have been blocked on the grounds of antitrust violations. Now, because of new competition from the Internet, the Department of Justice questions few of these acquisitions.[23]

In 1997 in one of the largest single weekly newspaper group deals, Advance Publications, which owns the *Cleveland Plain Dealer*, purchased 23 weeklies with a circulation of 246,538 in northwestern Ohio. The agreement is seen as a landmark because the Justice Department allowed a major consolidation of Cleveland's media to go unchallenged.[24] This hands-off policy exists despite a lack of evidence that online competition has the same positive effects as the print competition that is disappearing.

Research Questions

Because weeklies have become more important to readers and because research shows newspaper competition serves readers, this study will examine a national sample of weekly newspapers. This examination will provide descriptive baseline data about several weekly newspaper characteristics. In addition, it will explore relationships among variables such as type of weekly, ownership and publication cycle.

To accomplish this aim, the study will answer the following research questions:

1. How many weekly newspapers fall into the paid and free categories?
2. What percentage of weeklies are group owned?
3. What percentage of weeklies are located in metropolitan central cities, suburbs and rural areas?
4. What percentage of weeklies publish on various days of the week?
5. Does day of publication differ by type of circulation, ownership or geographic area?
6. Does average circulation differ by day of publication?
7. Does average circulation differ by type of circulation, ownership or geographic area?
8. Do advertising rates differ by type of circulation, ownership or geographic area?
9. Does the cost-per-thousand advertising rate differ by type of circulation, ownership or geographic area?

Methods

A stratified random sample of 1,027 weekly newspapers was used in this national study. The proportion of newspapers in the sample from each state equaled the population proportion from each state. The sample represents nearly 13 percent of the approximately 8,200 papers published once a week in the United States.[25]

One of the difficulties in studying weeklies is identifying all the members of the population. Estimates of the number of weeklies vary because the newspaper industry does not have a standard method of defining or gathering information on them.[26]

Part of the complication arises from the fact that weeklies constantly start up and shut down, and many do not belong to press associations.

Data on the weeklies were obtained in 1997 from state press association directories, *Bacon's Newspaper Directory* and *Editor & Publisher International Year Book*.

Weeklies were analyzed using four variables -- type of ownership, type of circulation, geographic area and publication cycle. The latter simply refers to the day that a weekly is published.

Ownership was divided into group and independently owned publications. Any ownership of more than one weekly newspaper was defined as group ownership.

Type of circulation was specified as paid and free. Many weeklies have a combination of paid and free circulation. A publication that received subscriptions from 5 percent or more of its total circulation was categorized as a paid weekly. The 5 percent allows for mixed circulation but prevents weeklies that have a substantial income from subscriptions from being classified as free publications.

Weeklies comprised three geographic areas. Weeklies inside the central city of a metropolitan statistical area were classified as metropolitan weeklies. Suburban weeklies were found inside a MSA but outside the central city. Rural weeklies were located outside a MSA.

T-tests were run to evaluate whether differences in variables between type of ownership, type of circulation and geographic area existed in the population. The t-test also was used to compare the means of circulation, advertising rates and advertising cost per thousand. Chi-square statistics were applied to evaluate variations by day of publication. A one-way ANOVA was run to examine the effects of publication cycle on average paid, free and total circulations.

Results

The first three research questions of this study asked what percentage of weekly newspapers fell into the various categories of weeklies. The sample population consisted of 1,027 weekly newspapers. There were 842 paid weeklies making up 82 percent of the sample and 185 free-distributed weeklies with less than 5 percent paid circulation comprising the remaining 18 percent. With a standard error of proportions of 1.6, between 78.8 percent and 85.2 percent of all weeklies in the United States were paid circulation in 1997.

Type of ownership of the weeklies was equally divided between independents (50.3 percent) and groups (49.7 percent), with 517 independent papers and 510 group papers. Free weeklies were more likely to be group owned. Groups owned 126 (68 percent) free weeklies compared with only 59 owned by independents. Conversely, 458 of the paid weeklies were independently owned, and 384 (46 percent) were group owned.

The sample was made up of 87 (9 percent) weeklies in the central city of a metropolitan area. Suburban weeklies numbered 476 (46 percent), and rural weeklies numbered 464 (45 percent).

Most of the weeklies were paid circulation. Only 26 (6 percent) of the rural weeklies and only 126 (26 percent) of the suburban weeklies were free. However, 54 (62 percent) of the 87 metropolitan weeklies were paid.

Metropolitan weeklies were more than twice as likely to be independently owned as group owned -- 59 compared to 28. Similarly, rural weeklies were nearly two times as apt to be an independent versus group property -- 308 compared to 156. By contrast, suburban weeklies were more than twice as liable to belong to a group -- 326 papers -- as to be independently held -- 150 papers.

Research question four asked what percentage of weeklies publish on various days of the week. Table 1 shows that weeklies are primarily published on weekdays. The newspapers were most likely to be published on Thursday (44 percent) followed by Wednesday (38 percent) because of supermarket advertising. Relatively few papers were published the three remaining weekdays -- Friday (7 percent), Tuesday (5 percent) and Monday (3 percent). Even fewer weeklies were put out on weekends -- Sunday (2 percent) and Saturday (1 percent).

INSERT TABLE 1 HERE

The distribution of most types of weeklies throughout the week were very similar to that of the sample as a whole. Group and independently owned weeklies were no exception. Eighty-five percent

of rural weeklies, 81 percent of suburban weeklies and 74 percent of metropolitan weeklies published Wednesday and Thursday.

However, a higher percentage of metropolitan weeklies published on Friday (22 percent) than did weeklies in other geographic areas. Free weeklies also published more frequently on Friday (14 percent) and less frequently on Thursday (31 percent) than the sample as a whole.

Research question five asked if the day of publication differed among the various types of weeklies. Table 2 reports no statistically significant relationship between the day of publication and whether the newspapers were group or independently owned.

INSERT TABLE 2 HERE

However, a highly statistically significant interaction was evident between the day of publication and whether the circulation was paid or free. Although free weeklies accounted for only 18 percent of the newspapers in this study, they constituted 44 percent of the weeklies published on Sunday, 41 percent on Monday and 35 percent on Friday. The free weeklies' publication runs on those three days were much higher than expected.

Three times as many metropolitan weeklies went to press on Friday as expected. They accounted for only 9 percent of the sample but constituted 26 percent of the weeklies published on Fridays. By contrast, rural weeklies were published less often on Friday than expected. They comprised 45 percent of the sample but made up only 24 percent of the weeklies that came out on Friday.

Research question 6 asked if average circulation varied by day of publication. Table 3 showed a highly statistically significant difference in publication cycle between average free and paid circulations ($p < .001$). Free circulation was highest on Monday followed by Friday and Sunday. Paid circulation was much larger on Saturday than other days of the week. A highly statistically significant difference also was found in average total circulation according to the day published ($p < .001$).

INSERT TABLE 3 HERE

Research question seven asked if average circulation differed among the various types of weeklies. Table 4 reveals differences in average total circulation based on geographic area and type of circulation but not type of ownership.

INSERT TABLE 4 HERE

Total average circulation for paid weeklies was 5,311. Free weeklies were much larger. Their average circulation was 23,530.

Group-owned weeklies had an average free circulation of 6,007. This compared with group-owned weeklies' average paid circulation of 3,320. Average total circulation for group-owned weeklies was 9,327.

Independently owned weeklies were smaller than group-owned weeklies. Average total circulation was 7,869. But the average paid circulation of independently owned weeklies was larger than the average free circulation of independently owned weeklies -- 4,399 compared with 3,470.

Statistically significant differences emerged among metropolitan, suburban and rural weeklies regarding paid, free and total circulation. Rural weeklies were the smallest with an average paid circulation of 2,900, free circulation of 880 and total circulation of 3,779.

Suburban weeklies were statistically significantly larger than rural weeklies for each type of circulation category. Paid circulation for suburbans averaged 3,424, free circulation averaged 6,467 and total circulation averaged 9,892.

Metropolitan weeklies were statistically significantly larger than suburban weeklies. Paid circulation for metros averaged 11,404, free circulation averaged 15,757 and total circulation averaged 27,161.

Suburban weeklies were far more dependent on free circulation than rural weeklies. Free circulation accounted for 65 percent of the total circulation of suburban weeklies but only 23 percent of the total circulation of rural weeklies. Metropolitan weeklies were slightly less reliant on free circulation than suburban weeklies. Free circulation made up 58 percent of their total circulation.

Research question eight asked if advertising rates varied among the various types of weeklies. Table 5 indicates that advertising rates differed among all types of weeklies. Paid weeklies charged an average of $7.04 per column inch for advertising, less than half the average price of $14.19 at free weeklies.

INSERT TABLE 5 HERE

Group-owned weeklies charged substantially more for advertising than independently owned ones -- an average of $9.90 per column inch compared to an average of $6.78.

Statistically significant differences were found in advertising rates according to geographic area. Rural weeklies had the lowest average rates at $4.85 per column inch. Suburbans charged an average of $10.27 per column inch, and metros charged an average of $16.22 per column inch.

Research question nine asked if the cost-per-thousand advertising rate differed among the various types of weeklies. Table 6 shows that paid weeklies charged a higher advertising rate per thousand than free weeklies. The average cost per thousand for total circulation was $2.51 for paid weeklies compared to $1.17 for free weeklies.

INSERT TABLE 6 HERE

Ownership had a statistically significant effect on the price of advertising when controlled for circulation. In every instance group-owned weeklies were able to charge more than their independent counterparts. The mean advertising price per thousand for total circulation was $2.68 for group-owned weeklies and $1.86 for independently owned weeklies ($p < .001$). The mean advertising price per thousand for paid circulation at group-owned weeklies was $2.19 compared to $1.69 for independently owned ones ($p < .001$). The mean advertising price per thousand for free circulation at group-owned weeklies was $0.49 and for independent free weeklies was $0.17 ($p < .001$).

Rural weeklies charged an average of $2.20 per thousand for total circulation. Suburban weeklies charged an average of $2.49 per thousand for total circulation. Although suburban weeklies charged more, the difference was not statistically significant. Metropolitan weeklies charged an average of $1.43 per thousand for total circulation which was statistically significantly less than suburban weeklies.

Breaking down advertising rates per thousand into paid and free circulation reveals geographical differences. Although no statistically significant difference existed in advertising rates per thousand for paid circulation at suburban and rural weeklies, the difference in advertising rates per thousand for free circulation was highly statistically significant ($p < .001$). Suburban weeklies charged $0.51 per thousand for free circulation compared to $0.12 per thousand for free circulation at rural weeklies.

The difference in advertising rates per thousand is much narrower between suburban and metropolitan weeklies when examining paid and free circulations separately. Suburban weeklies charged a slightly higher per thousand rate for free circulation than did metropolitan weeklies. The difference between advertising rates per thousand for paid circulation at suburban and metropolitan weeklies was statistically significant ($p < .006$). Suburban weeklies charged more per thousand for paid circulation advertising than did metropolitan weeklies.

Discussion and Conclusions

Of the 1,027 weeklies in this study, 842 were paid circulation weeklies compared with 185 free circulation weeklies. Free weeklies made up 18 percent of the sample. This percentage is comparable with an earlier study that identified 11 percent of Michigan weeklies as free circulation papers.[27]

Free weeklies were much larger than paid weeklies. The largest free weekly had a circulation more than 40 percent greater than the largest paid weekly -- 143,000 compared to 100,212. Revenue from subscriptions significantly lowered the circulation needed to establish and maintain paid weeklies' profitability. Free weeklies rely solely on advertising rates and therefore require larger circulations.

Previous research reported that free weeklies had an average circulation four times larger than paid weeklies.[28] The figure is consistent with this study's finding that free weeklies averaged 4.4 times the circulation of paid weeklies.

The finding that geographic area is a significant factor in the circulation of weeklies is consistent with previous research.[29] However, the earlier study compared weeklies in rural and resort communities with those in urban and suburban areas. In essence, it compared weeklies in the smallest communities with all other weeklies. By contrast, this study compared three geographic areas.

Suburban weeklies fell between rural and metropolitan weeklies in terms of circulation size. Based on average total circulation, the combined circulation of as few as three suburbans could exceed

that of a metro weekly. The more affluent readership of suburban weeklies also make them attractive to advertisers. Group-owned suburban weeklies clustered around an urban area can offer some advertisers a viable alternative to metropolitan weeklies and local dailies. This supports the contention that suburban weeklies are another potential layer of umbrella competition.[30]

In-depth analysis of competition among weeklies is needed. This study's results related to geographic area suggest a complex interaction between weeklies in the suburbs and nearby locales. However, the use of metropolitan statistical areas to geographically categorize weeklies can be misleading. Some counties are made up primarily of isolated rural communities, but because the counties are part of a MSA every weekly is defined as suburban. Examining competition based on the population and relative proximity of communities may reveal different interactions.

Suburban weeklies were similar to metropolitan weeklies when examining free circulation advertising rates per thousand. This indicates that metropolitan and suburban areas provide environments with adequate population and enough business activity for free circulation weeklies to succeed. Rural weeklies depend more heavily on paid circulation because smaller communities cannot generate the advertising revenue to support a free paper.

However, suburban weeklies were more like rural weeklies when comparing paid circulation advertising rates per thousand. The willingness of suburban and rural readers to pay for weeklies

indicates a higher reliance on those publications, probably for news that metropolitan dailies do not provide.

Weeklies were equally likely to be group or independently owned. However, the incidence of group ownership actually may be slightly higher than reported. *Bacon's Newspaper Directory* and *Editor & Publisher International Year Book* occasionally fail to categorize ownership of two or three weeklies by an individual or family as part of a group.

Independents were more often paid than free weeklies. The normally larger free weeklies were more than twice as likely to be group owned. Companies acquiring weeklies have shunned small town weeklies with annual revenues of $300,000 or less for prosperous weeklies near metropolitan markets that tend to be better matches for clustering.[31] This practice allows group owners to achieve economies of scale by consolidating under one roof the various functions of several papers in the same geographic area.

The higher advertising rates per thousand that groups were able to charge in comparison to independents reflect their market strategy of clustering weeklies in affluent suburbs. The difference also may reveal the ability of groups to offer more services to advertisers such as zoned advertising and total market coverage.[32]

Consistent with earlier research,[33] paid weeklies charged more for advertising than free weeklies. Free weeklies may not be able to charge as much for advertising simply because their readership cannot be proven. There is the assumption that readers who pay for

a newspaper are more likely to read it and consequently are better prospects for advertisers.

Most weeklies are published on week days. These include smaller, and presumably more isolated, weeklies that are unlikely to compete for readership with dailies and other weeklies. Therefore, Wednesday and Thursday publication represents the cycle of weekly newspapers that act as the primary news source for their communities.

The days with the highest average circulation were different from the days with the largest number of papers published. The largest paid circulation weeklies published on Saturday. Located in sprawling urban and suburban markets, they compete with other newspapers. Saturday publication allows them to provide a wrap up of the week's news and to avoid directly competing with the Sunday edition of nearby dailies.

The pattern for free weeklies is more complex. Large metropolitan alternative weeklies rely heavily on arts and entertainment content. Such papers often publish in anticipation of the weekend and boost the average circulation on Friday. Other large circulation days for free weeklies are Sunday and Monday when they provide readers with a preview of the upcoming week.

The National Newspaper Association identifies 13 categories of weeklies based on content and readership. Many metropolitan areas have a variety of specialized weeklies which may include shoppers and alternative, ethnic, senior, business and foreign language weeklies. No research has examined these categories of publications

that may differ profoundly from each other in their operation and ownership.

The weekly newspaper business is a strong, vibrant industry. It exhibits a great deal of variation by ownership, type of circulation, geographic area and day of publication. These variations affect advertising rates, advertising cost per thousand and circulation size. The strength of this segment of the newspaper industry warrants additional study, including the impact of clustering on weekly newspaper performance.

NOTES

1. Leo Bogart, **Press and Public**, 2nd ed. Hillsdale, N.J.: Lawrence Erlbaum Associates, 1989, p. 16.

2. **Facts About Newspapers 1999**. Vienna, Va.: Newspaper Association of America, 1999, p. 16.

3. Nancy M. Davis, *Ring Around the Metros*. **Presstime**, September 1999, p. 51.

4. Raymond Nixon, *Trends in U.S. Daily Newspaper Ownership: Concentration with Competition*. **Gazette**, 1968, pp. 181-193; John Busterna, *Trends in Daily Newspaper Ownership*. **Journalism Quarterly**, Winter 1988, pp. 831-838; Stephen Lacy and Lucinda Davenport, *Daily Newspaper Market Structure, Concentration and Competition*. **Journal of Media Economics**, Number 3, 1994, pp. 33-46.

5. Stephen Lacy and Shikha Dalmia, *The Relationship Between Daily and Weekly Newspaper Penetration in Non-Metropolitan Areas*. **Newspaper Research Journal**, Summer & Fall 1993, pp. 20-33.

6. Charles T. Duncan, *How the Weekly Press Covers News of Local Government*. **Journalism Quarterly**, Summer 1952, pp. 283-293; Stephen Lacy and Stephen Dravis, *Pricing of Advertising in Weeklies: A Replication*. **Journalism Quarterly**, Autumn 1991, pp. 338-344.

7. Buzz Bissinger, *Feeling the Heat*. **American Journalism Review**, December 1999, pp. 52-53.

8. Walt Potter, *Blooming Business*. **Presstime**, February 1998, pp. 24-26.

9. Alex S. Jones, *The Weekly Newspaper Becomes a Hot Property*. **The New York Times**, May 15, 1989, p. D6; Howard Rudnitsky, *Why Weeklies are Hot*. **Forbes**, February, 5, 1990, pp. 100-103; Potter, *Blooming Business, op. cit.*

10. Bissinger, *Feeling the Heat, op. cit.*

11. *Ibid.*

12. Potter, *Blooming Business, op. cit.*

13. David Asher, *Who Owns What?* **Presstime**, December 1999, pp. 29-30.

14. Mary Walton, *The Selling of Small Town America*. **American Journalism Review**, May 1999, pp. 58-72.

15. Wendy Giman, *Alternatives Making Inroads*. **Editor & Publisher**, May 31, 1997, p. 14; Davis, *Ring Around the Metros, op. cit., p. 52.*

16. Jones, *The Weekly Newspaper," op. cit.*

17. Stephen Lacy, David C. Coulson and Hiromi Cho, *Competition for Household Penetration Among U.S. Metropolitan Daily, Non-Metropolitan Daily and Weekly Newspapers Outside Metropolitan Areas*. Paper presented at the Time and Media Markets International Conference, Pamplona, Spain, May 2000.

18. *Ibid.*

19. Lacy and Dalmia, *Daily and Weekly Penetration, op. cit.*

20. Stephen Lacy, *Competition among Metropolitan Daily, Small Daily and Weekly Newspapers*. **Journalism Quarterly**, Autumn 1984, pp. 641-644, 742.

21. William Blankenburg, *Determinants of Pricing of Advertising in Weeklies*. **Journalism Quarterly**, Winter 1980, pp. 662-666.

22. Lacy and Dravis, *Pricing of Advertising, op. cit.*

23. Bissinger, *Feeling the Heat, op. cit., p. 53.*

24. Potter, *Blooming Business, op. cit., p. 26.*

25. Bissinger, *Feeling the Heat, op. cit.*

26. Nancy M. Davis, *Counting Weeklies*. **Presstime**, December 1999, p. 30.

27. Lacy and Dravis, *Price of Advertising, op. cit., p. 341.*

28. Todd Hunt and Michael Cheney, *Content Comparison of Free and Paid Circulation Weeklies*. **Journalism Quarterly**, Spring 1982, p. 135.

29. Eugenia Zerbinos, *Analysis of the Increase in Weekly Circulation, 1960-80*. **Journalism Quarterly**, Autumn 1982, pp. 467-471.

30. Stephen Lacy and Todd F. Simon, **The Economics and Regulation of United States Newspapers**. Norwood, N.J.: Ablex Publishing Corporation, 1993, p. 113.

31. Bissinger, *Feeling the Heat, op. cit.*

32. Potter, *Blooming Business, op. cit., pp. 24-25; Davis, Ring Around the Metros, op. cit., pp. 53-54.*

33. Lacy and Dravis, *Pricing of Advertising, op. cit.*

Table 1

Day of Publication by Type of Weekly

	Type of Circulation*		Ownership		Geography*			
	Paid	Free	Group	Indep.	Metro.	Suburb	Rural	
	%	%	%	%	%	%	%	N = 1027
Sunday	1.1	3.8	1.6	1.5	2.3	2.1	0.9	16
Monday	2.0	6.5	3.3	2.3	0.0	2.9	3.2	29
Tuesday	4.8	8.1	4.5	6.2	1.1	5.3	6.3	55
Wednesday	38.3	35.1	38.8	36.7	29.9	37.7	39.2	388
Thursday	47.1	31.4	43.1	45.5	43.8	42.9	45.8	455
Friday	5.6	13.5	6.9	7.2	21.8	7.6	3.7	72
Saturday	1.1	1.6	1.8	0.6	1.1	1.5	0.9	12

* $p < .001$ (Chi-square analysis)

23

Table 2

Variation in Type of Weekly by Day of Publication

	Type of Circulation*		Ownership		Geography*			
	Paid	Free	Group	Indep.	Metro.	Suburb	Rural	
	%	%	%	%	%	%	%	N = 1027
Sunday	56.3	43.7	50.0	50.0	12.5	62.5	25.0	16
Monday	58.6	41.4	58.6	41.4	0.0	48.3	51.7	29
Tuesday	72.7	27.3	41.8	58.2	1.8	45.5	52.7	55
Wednesday	83.2	16.8	51.0	49.0	6.7	46.4	46.9	388
Thursday	87.3	12.7	48.4	51.6	8.4	44.8	46.8	455
Friday	65.3	34.7	48.6	51.4	26.4	50.0	23.6	72
Saturday	75.0	25.0	75.0	25.0	8.3	58.3	33.3	12

$p < .001$ (Chi-square analysis)

Table 3

Average Circulation by Day of Publication

	Paid*	(%)	Free*	(%)	Total*	(%)
Sunday	4,799	(13.6)[1]	10,599	(19.1)	15,398	(16.9)
Monday	2,967	(8.4)	12,994	(23.3)	15,961	(17.6)
Tuesday	2,624	(7.4)	5,250	(9.5)	7,820	(8.6)
Wednesday	3,710	(10.5)	4,303	(7.8)	7,988	(8.8)
Thursday	3,722	(10.5)	3,113	(5.6)	6,946	(7.6)
Friday	4,910	(13.9)	11,752	(21.2)	16,662	(18.3)
Saturday	12,602	(35.7)	7,506	(13.5)	20,108	(22.2)

* $p < .001$ (One-way ANOVA)

1 The value in parentheses represents the percentage of circulation published on a given day of the week.

Table 4

Average Circulation by Type of Weekly

	Type of Circulation			T-test of Total Circulation	
	Paid	Free	Total	N	T-test
Paid	4,705	607	5,311	842	17.862*
	(253)[1]	(101)	(277)		
Free	34	23,496	23,530	185	
	(8)	(1,778)	(1,777)		
Group	3,320	6,007	9,327	510	1.627
	(219)	(672)	(664)		
Independent	4,399	3,470	7,869	517	
	(367)	(531)	(603)		
Metro	11,404	15,757	27,161	87	8.753*[a]
	(1,950)	(3,004)	(2,952)		
Suburban	3,424	6,467	9,892	476	8.840*[b]
	(206)	(670)	(650)		
Rural	2,900	880	3,779	464	17.112*[c]
	(154)	(173)	(215)		

1 Standard error appears in parentheses.

* If t-value exceeds 3.291, then the difference is statistically significant at the $p < .001$ level.

a Metro by suburban

b Suburban by rural

c Rural by metro

Table 5

Advertising Rate by Type of Weekly

	Ad Rate Per Column Inch Total	N	T-test
Paid	7.04	842	12.762*
	(0.21)[1]		
Free	14.19	185	
	(0.72)		
Group	9.90	510	6.872*
	(0.34)		
Independent	6.78	517	
	(0.30)		
Metro	16.22	87	5.994*[a]
	(1.29)		
Suburban	10.27	476	14.385*[b]
	(0.35)		
Rural	4.85	464	18.349*[c]
	(0.12)		

1 Standard error appears in parentheses.

* If t-value exceeds 3.291, then the difference is statistically significant at the $p < .001$ level.

a Metro by suburban

b Suburban by rural

c Rural by metro

Table 6

Advertising Rate Per Thousand by Type of Weekly

	Type of Circulation			T-test for Total Per Thousand Ad Rate	
	Paid	Free	Total	N	T-test
Paid	2.37	0.14	2.51	842	6.434**
	(0.08)[1]	(0.02)	(0.09)		
Free	0.00	1.17	1.17	185	
	(0.00)	(0.13)	(0.13)		
Group	2.19	0.49	2.68	510	5.106**
	(0.13)	(0.06)	(0.14)		
Independent	1.69	0.17	1.86	517	
	(0.07)	(0.02)	(0.07)		
Metro	1.06	0.37	1.43	87	2.896**[a]
	(0.26)	(0.07)	(0.29)		
Suburban	1.98	0.51	2.49	476	1.744[b]
	(0.13)	(0.06)	(0.15)		
Rural	2.07	0.12	2.20	464	3.428**[c]
	(0.08)	(0.02)	(0.08)		

1 Standard error appears in parentheses.

* If t-value exceeds 2.576, then the difference is statistically significant at the $p < .01$ level.

** If t-value exceeds 3.291, then the difference is statistically significant at the $p < .001$ level.

a Metro by suburban

b Suburban by rural

c Rural by metro

NEWS HOLE SIZING POLICIES AT NONDAILY NEWSPAPERS

Media Management & Economics Division
AEJMC Annual Conference
Phoenix, Arizona

August, 2000

Ken Smith
Associate Professor
Dept. of Communication & Mass Media
University of Wyoming
P.O. Box 3904
Laramie, WY 82071-3904
(307) 766-5437
klsmith@uwyo.edu

ABSTRACT

NEWS HOLE SIZING POLICIES AT NONDAILY NEWSPAPERS

Ken Smith
University of Wyoming

This study examined the methods used by nondaily newspapers to determine the sizes of their news holes. The results indicate that a large majority of nondailies (77.8%) base their news holes on a percentage of their advertising inches. In most cases, the type of advertising used to determine the sizes of the news holes was ROP advertising. Most nondailies did not take preprint advertising into account in sizing their news holes.

NEWS HOLE SIZING POLICIES AT NONDAILY NEWSPAPERS

A commonly held perception in the newspaper industry is that the amount of news that appears in a newspaper is a function of advertising. As Fink wrote, "news hole size varies widely, but *not* in direct response to news availability; it is determined by the advertising department."[1]

Yet the advertising base at newspapers has changed. In recent years a trend has developed among larger advertisers in which they have moved away from the traditional ROP advertising that is printed on the newspapers' pages alongside the news and toward preprints, free-standing circulars that are inserted into the newspaper and distributed with each copy.

In the United States, advertising accounted for about 75-80% of newspaper revenues industry wide in the 1980s,[2] and this percentage may now be higher than 85 percent.[3] Thus, any changes in the advertising base can have a profound effect on other operations as well. One area that could be affected is the news hole.

This study will examine the news hole at nondaily newspapers. Specifically, it will examine how the size of the news hole is determined, if preprints have affected the size of the news hole, and if the method of sizing the news hole varies by circulation or type of ownership.

Background

The historic view of newspapers is that they produce two products. They produce news that they sell to readers, and they produce advertising space that they sell to advertisers. A more accurate description of a newspaper's two products is provided by the dual product thesis (also called joint commodity thesis).[4] The dual product thesis agrees that a newspaper produces two products, news and advertising, but it assumes an interrelationship between the two. The newspaper provides news to readers who pay a token fee for the news with their subscription fees, but a more important form of

payment is their time and attention. While advertisers may pay for space in the newspaper, what they are really buying is the attention of this audience. In return, advertisers provide the newspaper with most of the revenue that is used to produce the news product. Figure 1 depicts the dual product thesis. The dashed line at the top indicates that the newspaper is merely a conduit that provides the time and attention of the audience to advertisers. The second dashed line represents the relationship between the advertising dollars and the editorial product because of the idea that the size of the news hole may be determined by the amount of advertising inches. Figure 1 shows that readers contribute subscription fees to the operating revenues, but it also emphasizes the greater share contributed by advertising fees by showing the advertising dollars in boldface type. Ironically, the size of the news hole is not believed to be influenced by the number of subscribers.

Even though advertising provides the bulk of the revenue to most newspapers and may even determine the size of the news hole, society considers the editorial product as the more important of the two because of its role in informing the public that is considered essential in a democracy. Thus, any change in advertising may be especially important because of its impact on the news.

Whether advertising determines the size of the news hole is the subject of some speculation. Casey and Copeland[5] determined in 1957 that most dailies no longer based the amount of news solely on advertising. Rather, dailies were using a "fixed minimum" news hole. Under this policy, dailies would set a minimum amount of space below which they would not allow their news inches to drop. The amount of space was not simply "fixed" in that it could vary upward, but it could not drop below a certain minimum.

A later study also found that most dailies no longer base the amount of news on advertising alone.[6] In 1976, 41 percent of dailies used the fixed minimum system. Another 26 percent used a sliding-percentage system in which the percentage of space

allocated to news was based on the number of pages in the newspaper on any particular day.

This relative independence of news from advertising was supported by a more recent study, which found that as total pages decreased during a period when newspaper revenues flattened in 1990-91, news pages did not decline as rapidly as ad pages.[7]

A more recent report indicated that most dailies continue to guarantee their readers minimum news holes.[8] The size of the news hole is now based on "complex space-planning and reporting procedures, frequently called budgets."[9] These planning procedures include such methods as the use of seasonal ads/news ratios, the banking of news space debits and credits, and ratios that convert preprint ad space to ROP equivalents. If the amount of advertising alone does not determine the size of the news hole at dailies, the relationship depicted in Figure 1 between advertising and the editorial product should still hold true. The methods may be more complex, but the amount of advertising, either in inches or dollars apparently helps to determine the size of the editorial product to be produced.

Despite this change in the relationship between advertising inches and the news hole at dailies, a change in the advertising base away from ROP and toward preprints has raised new concerns. Some newspapers began using preprints in the late 1960s, and by 1985 they accounted for about one-fourth of advertising revenues.[10] Despite predictions that preprints would eventually represent as much as one-third of newspaper advertising revenue, by 1995 they passed display advertising as the leading source and accounted for slightly more than one-half of retail ad revenue.[11]

The impact of this change in the advertising base on the news hole is not certain. A 1989 survey of 15 leading media companies concluded that preprints could result in a reduced news hole.[12] At the very least, some respondents believed that traditional

news to ad ratios would be discarded. A 1996 poll showed that the news hole at dailies had shrunk in actual size, but had increased as a percentage of the space occupied in the ROP pages.[13]

Even if newspapers abandon traditional news to ad ratios, a reduced profitability of preprints may also affect the news hole. One study of nondailies found that preprints are less profitable to newspapers than ROP advertising.[14] It concluded that this reduced profitability was due primarily to lower revenues resulting from preprints that from ROP.

This study will examine whether preprints affect the size of the news hole at nondaily newspapers. It will also examine the methods used to determine the size of the news hole at nondailies.

The research questions that will be examined are:

1. What methods do nondailies use to determine the size of their new holes?

2. Does the method of sizing the news hole vary by the nondailies' circulations?

3. Does the method of sizing the news hole vary by the type of ownership?

4. Does preprint advertising affect the size of the news hole at nondailies?

5. Would the news hole change in size if preprint advertisers used the more traditional ROP advertising instead?

Method

Personal interviews were conducted with the publishers of 117 nondailies from the Midwest and West. Nondailies were selected as the focus of this study because many are the only medium to cover their local governments. If preprints have any effect on the news hole, it could affect the flow of information to residents of smaller towns. In addition, if research has indicated that traditional news to ad ratios are being abandoned at daily newspapers, no studies have yet examined how nondailies determine the size of their news holes, or if they are also following this trend.

The interviews were conducted between January and April 1999 at the press association conventions of five states. Respondents were selected based on their attendance at the press conventions and their willingness to participate in the interviews. However, no potential respondent declined to participate. Despite the lack of randomness that resulted from this convenience sample, respondents represented a good cross section of the newspaper circulations and the geographic areas in their states.

Respondents were asked to provide a detailed explanation of the method used in sizing their news hole. They were also asked if preprints had any effect on the sizes of their news holes or if they adjusted the sizes of their news holes because of preprints. In addition, they were asked if a switch by preprint advertisers to ROP would affect the sizes of their news holes. Respondents also provided the circulations and type of ownership for their newspapers.

Results

Respondents identified five different methods that were used to determine the size of the news hole at the nondailies in this study (no significant difference was evident among the states in the methods that were used).[15] The method used by the vast majority of nondailies based the news hole on a percentage of advertising (Table 1). Using this method, a newspaper predetermined an ad/news ratio, tallied the advertising inches, and then calculated the number of pages that resulted in this ad/news ratio. While the final size of the news hole depended to some degree on the constraints of the press (whenever additional pages are added, they must be added in minimum increments of two broadsheet pages), the primary determinant of the news hole was the amount of advertising. This method is sometimes called a "fixed percentage of news" since the amount of news is based on a predetermined percentage.

The second-most utilized method was based on the amount of news. Under this

method, the newspaper determined the amount of news it had in a given week and added this amount to the advertising inches. While both the news and advertising were used to determine the size of the newspaper, the size of the news hole was independent of the ad inches.

Three other methods of sizing the news hole were used by less than 10 percent of respondents and included a fixed amount of news, a fixed number of pages, and a fixed minimum amount of news. With the "fixed amount of news" method, a newspaper predetermined the number of inches allocated for news. Respondents who used this method reported that the amount of news in their communities did not vary much on a weekly basis, so they were able to predict the amount of space it would require. The "fixed number of pages" method meant that a newspaper used the same number of pages in every edition. The size of the news hole was dependent of the amount of advertising in that the news was allocated to the space remaining after the ads had been placed on the pages. The "fixed minimum" system is the same in nondailies as in daily newspapers except that it appears to be utilized much more commonly by dailies.

The method of sizing the news hole did not vary significantly based on circulation (Table 2). When newspapers were divided into four groups based on circulation, the smallest newspapers did rely somewhat less on the "percentage of advertising" method, but a crosstab analysis showed any differences in sizing the news hole resulting from circulation were not significant at the $p<.05$ level.

The method of sizing the news hole also did not vary significantly based on the type of ownership (Table 3). While nondailies with out-of-state group ownership did tend to utilize the "percentage of advertising" method somewhat more than others, a crosstab analysis indicated that any differences in sizing the news hole due to ownership type were not significant at the $p<.05$ level.

While most nondailies used a "percentage of advertising" method to size their news holes, apparently the percentage was based primarily on ROP advertising since only 12

percent of the respondents indicated that preprint advertising was added to the equation used to determine the size of their news hole (Table 4). Another 12 percent said they would factor in preprints irregularly, but only when their postal percentage was jeopardized (newspapers must have at least 25 percent non-advertising content in at least 50 percent of their issues during the course of any given year to qualify for reduced second-class postal rates). At the majority of newspapers, preprint advertising played no role in determining the size of the news hole, although at 18.8 percent of these newspapers, the size of the news hole was independent of advertising.

While most nondailies do not use preprints in sizing their news holes, apparently their news holes would be larger if preprint advertisers were to switch to the more traditional ROP advertising. A substantial majority of respondents indicated that the size of their news holes would increase if preprint advertisers were to run ROP advertising in the newspaper instead (Table 5).

Discussion

If daily newspapers have moved away over time from a strict "percentage of advertising" method of sizing the news hole and toward methods that set minimums on the amount of news appearing in any given edition, apparently nondailies have not followed this trend. More than three-quarters of the nondailies in this study still use a "percentage of advertising" method to determine the sizes of their news holes. Unlike dailies, that suffer the traditional slow ad days such as Mondays and Tuesdays--days that would not warrant a sufficient amount of news if based on advertising, nondailies have a more predictable cumulative total of ads in any given week. Most can include a sufficient amount of news based on a "percentage of advertising" formula and do not find it necessary to increase their page counts beyond what the advertising dictates. In fact, traditional thought says that nondailies are timed to come out on the days most desired by advertisers, so they may be maximizing their news holes in this manner.

While nondailies experience seasonal variations in advertising lineage (the high-volume Christmas or back-to-school seasons versus the low-volume post-Christmas season, for example), these variations are not as regular and probably not as marked as the variations occurring among days of a week.

The relatively recent growth of preprint advertising apparently has not worked to the advantage of nondaily readers. Even though preprint ad programs are typically used by many of the largest advertisers, preprint inches are not taken into account by most nondailies when the size of the news hole is determined. If these same advertisers used the more traditional ROP advertising instead, these ROP inches would be used in sizing the news hole.

The question then becomes how newspapers use preprint ad revenue if not to support the editorial product. Since nondailies realize lower overall profits from preprints than from ROP,[16] perhaps they are able to realize the same net profit by not increasing editorial inches as preprint inches are added when accounts switch from ROP to preprints. And perhaps the money saved by not increasing the news hole in response to preprint inches may even help to compensate for the income lost when other advertisers abandon the newspaper and run their preprints with competitors.

The impact of preprints is not the same as that at many dailies, where some relationship apparently exists between preprints and the news hole. This relationship at dailies is not as direct as that between the news hole and ROP ad inches, but at least preprints are taken into account. Thus, the dashed line in Figure 1 representing a relationship between all advertising and the editorial product still holds true. However, at nondailies the dual product thesis must be amended to account for the lack of a relationship between the news hole and preprints. Figure 2 depicts this difference. In Figure 2, the editorial product is still related to the amount of ROP advertising, but the income from preprint advertising simply flows into a pool of operating revenues that has no direct relationship to the size of the news hole.

The important implication of the change represented by Figure 2 is that if preprints continue to grow in proportion to other advertising revenues, the amount of local news available to readers in smaller communities could decline. This study did not examine whether the actual size of the news hole at nondailies has declined over time as some larger ROP advertisers have switched to preprints, and this provides one important area for further study. Another area of further study is the impact of preprints on the news hole at dailies. Some evidence exists that dailies do not base their news hole on advertising inches, but with the large influx of preprints into daily markets, new research is necessary to confirm this.

Notes

1. Conrad C. Fink, **Strategic Newspaper Management**. New York: Random House, 1988, p. 168.

2. Fink, *op.cit.*; Robert G. Picard, *Rate Setting and Competition in Newspaper Advertising*. **Newspaper Research Journal**, 3 (3), April 1982, pp. 3-13.

3. Robert G. Picard and Jeffrey H. Brody, **The Newspaper Publishing Industry**. Boston: Allyn and Bacon, 1997.

4. Stephen Lacy and Todd F. Simon, **The Economics and Regulation of United States Newspapers**. Norwood, New Jersey: Ablex Publishing Corporation, 1993; Robert G. Picard, **Media Economics: Concepts and Issues**. Newbury Park, California: Sage Publications, 1989.

5. Ralph D. Casey and Thomas H. Copeland, *Current "News Hole" Policies of Daily Newspapers: A Survey*. **Journalism Quarterly**, 34 (1), Spring 1957, pp. 175-186.

6. Dan Drew and G. Cleveland Wilhoit, *Newshole Allocation Policies of American Daily Newspapers*. **Journalism Quarterly**, 53 (3), Fall 1976, pp. 434-440, 482.

7. William B. Blankenburg, *Hard Times and the News Hole*. **Journalism & Mass Communication Quarterly**, 72 (3), Autumn 1995, pp. 634-41.

8. Nancy M. Davis, *News Holes, Inch by Inch*. **Presstime**, 18 (4), April 1996, pp. 26-29.

9. Davis, *op.cit.*, p. 28.

10. Rebecca Ross Albers, *Conquering Preprint Peaks*. **Presstime**, 20 (10), October 1998, pp. 45-49.

11. Albers, *op.cit.*; Davis, *op.cit.*; Ann Lallande, *Navigating the Microzone Maze*. **Presstime**, 18 (1), January 1996, pp. 29-33.

12. Erik L. Collins, Robert L. Jones, and Eugene P. Corrigan, *Newspaper advertising preprints: New player, new game, new rules*. Paper presented at the convention of the Association for Education in Journalism and Mass Communication, Washington, D.C., August 1989.

13. Leo Bogart, *The preprint predicament*. **Presstime**, 19 (9), September 1997, p. 42.

14. Ken Smith, *Preprints Versus Display Advertising: Which is More Profitable for Nondaily Newspapers?* **The Journal of Media Economics**, 12 (4), 1999, pp. 233-245.

15. $X^2=20.70$, df=16, $p>.05$

16. Smith, *op.cit.*

Figure 1
Diagram of Dual Product Thesis

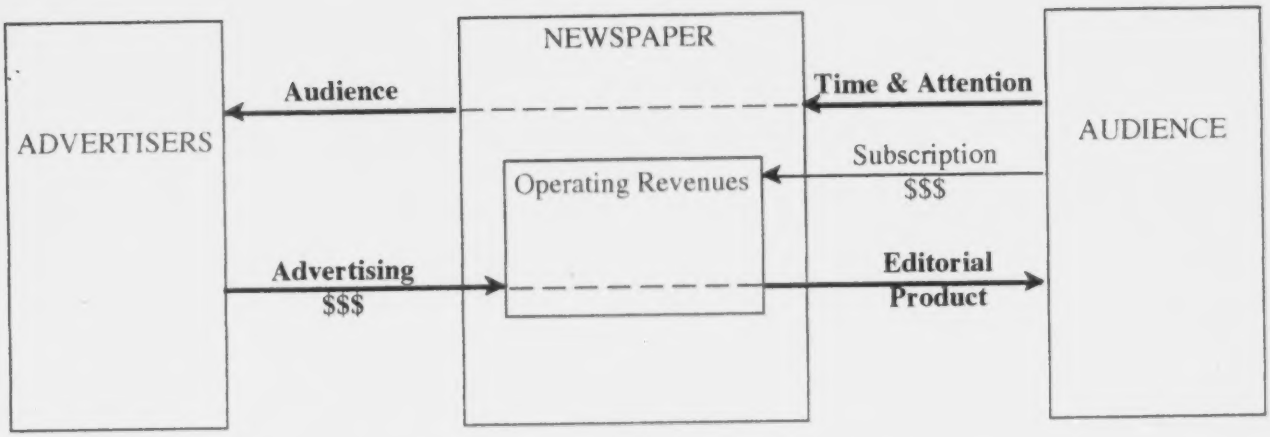


Figure 2
Diagram of Revised Dual Product Thesis

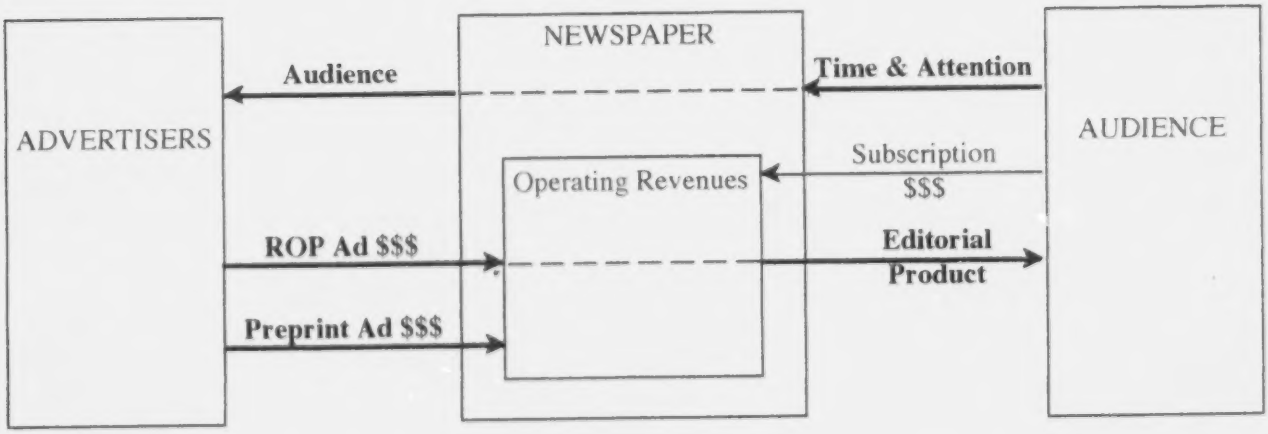


Table 1: *Method of sizing news hole at weeklies*

	#	%
Method of sizing news hole % of advertising (fixed % of news)	91	77.8
Amount of news	13	11.1
Fixed amount of news	7	6.0
Fixed number of pages	5	4.3
Fixed minimum amount of news space	1	0.9
Totals	117	100.0

Table 2: *Method of sizing news hole by circulation*

	Circulation			
	218-1,449	**1,450-2,149**	**2,150-3,499**	**3,500-7,500**
Sizing method				
% of advertising	69.0%	86.7%	82.8%	72.4%
Fixed minimum	0.0%	0.0%	0.0%	3.5%
Fixed amount	0.0%	0.0%	10.3%	13.8%
Amount of news	20.7%	10.0%	6.9%	6.9%
Fixed # of pages	10.3%	3.3%	0.0%	3.5%
Totals	100.0%	100.0%	100.0%	100.0%
# of newspapers	29	29	30	29

$X^2=18.442$, df=12, $p>.05$

Table 3: *Method of sizing news hole by ownership type*

Sizing method % of advertising	Locally owned	In-state group	Out-of-state group
Fixed minimum	79.4%	70.3%	88.2%
Fixed amount	1.6%	0.0%	0.0
Amount of news	6.4%	2.7%	11.8%
Fixed # of pages	6.4%	24.3%	0.0%
Totals	6.4%	2.7%	0.0%
	100.0%	100.0%	100.0%
# of newspapers	63	37	17

X^2=13.578, df=8, p>.05

Table 4: *Impact of preprint advertising on news hole*

	#	%
Impact on news hole		
No impact on news hole	67	57.3
Preprints added to % of advertising	14	12.0
Preprints only used for postal purposes	14	12.0
Not applicable	22	18.8
Total	117	100.0

Table 5: *Change in news hole if preprint advertisers changed to ROP advertising*

	#	%
Change in news hole		
Increased news hole	83	70.9
Decreased news hole	1	0.9
No change	33	28.2
Total	117	100.0

The Influence of Timing of Market Entry on Competition in Local Cellular Telephone Markets

Hugh S. Fullerton

Department of Public Communication
Sam Houston State University
Post Office Box 2299
Huntsville, Texas 77341-2299

Phone: (936) 294-1522
E-mail: scm_hsf@shsu.edu

Prepared for presentation to the
Media Management & Economics Division
Association for Education in Journalism and Mass Communication
August 11, 2000
Phoenix, Arizona

The Influence of Timing of Market Entry on Competition in Local Cellular Telephone Markets

Hugh S. Fullerton
Sam Houston State University

Abstract

The American cellular telephone industry from its inception until the early 1990s furnished a classic example of duopoly market structure at the local level. Earlier studies showed that firms in some markets exhibited substantial competitive behavior, while in other markets, firms were comparatively noncompetitive. In an effort to determine the roots of competitive behavior, this paper examines the influence of the timing of entry of the second firm into each market. Statistical tests based on several indices of competitive behavior indicate that market entry timing has little or no influence on the intensity of competitive behavior at the local level.

The Influence of Timing of Market Entry on Competition in Local Cellular Telephone Markets

Hugh S. Fullerton

Competition in the media, especially telecommunications, continues to be a significant issue for both media management and developers of public policy. Recently, cable television achieved full deregulation, on the presumption that still-developing technologies will provide competition and protect the consumer from monopoly practices. Whereas students of competition used to examine practices within only well-defined segments of the media, such as newspapers, broadcast television, telephone, etc., increasingly competition between such segments is being scrutinized.

One of the important questions raised under competition is how much competition is necessary to assure the benefits of competition to society. Most media channels are monopolies or oligopolies, at least within their service areas, so perfect competition is not a realistic expectation. How many firms need to be operating in a competitive market to drive prices to their lowest levels and encourage high quality service? In many segments of the media, public policy can influence the amount of competition and even some of the behavior of the competing firms. Deregulation, which in theory unleashes the power of the competitive marketplace, may lead to fewer, not more, firms being active in a particular market. In telecommunications, technical limitations continue to place constraints on the number of competitors in a market.

Duopoly -- a market with only two competing firms -- is often used as the theoretical structural model in which to study and demonstrate oligopoly behavior. Although widely cited in the literature, duopoly is really quite unusual in the real world. The Federal Communications Commission, however, created a series of duopoly markets when it set up the cellular telephone system in the U.S. in the early 1980s. For about a decade this duopoly structure persisted, until changes in technology and reassignment of the electromagnetic spectrum made competing services possible. Thus, we have nearly a decade of experience in a field experiment setting of the behaviors of firms competing in duopolies.

Economists often discuss "necessary and sufficient conditions" for a particular phenomenon to occur. Some settings may have certain conditions that are necessary for a desired behavior, but not the required conditions to ensure that it will occur. It would be useful, from both a managerial standpoint and a public policy point of view, to be able to identify the conditions both necessary and sufficient for competition to prevail.

Review of Literature

Although the concept of competition, the obverse of monopoly, is easily understood, its definition and identification are somewhat problematic.

Perfect competition, in the neoclassical view, exists when a market includes so many suppliers that no single one is capable of influencing price. The result, in neoclassical theory, should be that price approaches the marginal cost of production (P=MC). It

logically follows that if price equals marginal cost, existing competition must be vigorous enough to yield results equivalent to perfect competition.

Cowling (1982) defines the degree of monopoly as the "mark-up of price on marginal cost." If there is no such mark-up, the degree of monopoly is low or nonexistent. It is rarely possible to determine that mark-up, however, because, although prices are often public knowledge, the marginal cost of production is confidential, proprietary information. Indeed, the producer may not even know his marginal cost, and accountants may not agree on how to calculate it. It would be a relatively easy task to calculate the level of monopoly by Cowling's definition if such information were readily available.

While admitting that there is no simple, all-purpose definition of competition, Dewey (1969) finds four characteristics in all definitions:

1. Competition embodies the process of free exchange, including the existence of free market entry;
2. Competition connotes rivalry, which is commonly evidenced by price cutting, advertising, and product improvement;
3. Certain behaviors are predictable, such as buyer preference for lower prices.
4. Some behaviors are not predictable, so conditions of uncertainty are present.

In a duopoly situation, Dewey posits that the two firms will engage in a possibly lengthy process of varying price and output until each is independently satisfied that it has developed a strategy to optimize profit. These variations, or moves as they would be called in game theory, generate information and reduce uncertainty. When both firms stop experimenting with prices and output, the market may have the appearance of a monopoly, because prices will not move further toward marginal cost. Game theorists might label this situation a cooperative game, while students of competition would call it tacit collusion.

Economists often classify duopolies and other oligopolies by the names of early students of the structure, Cournot, Bertrand and Stackelberg. Cournot developed a model wherein competition took the form of setting production quantities. If one firm increases output, prices will tend to drop unless competing firms reduce their production. Under the Bertrand model, price is the variable. If a firm reduces prices, competing firms must do likewise or lose market share. Both models assume simultaneous decision-making by all participants. (Jacquemin, 1987)

Stackelberg extended the Cournot and Bertrand models to situations where the moves are sequential, not simultaneous. Thus the market in which suppliers make sequential moves adjusting quantity can be called the Cournot-Stackelberg model, and the market involving sequential moves to adjust prices is called the Bertrand-Stackelberg model. (Gardner, 1995).

In two papers, Fullerton (1998a, 1998b) examined rivalrous behavior in a competitive situation in cellular telephone markets, as evidenced by the three rivalry characteristics cited by Dewey. Fullerton utilized a proprietary dataset that contained information on pricing and other competitive behaviors of cellular telephone providers in the first 30 markets authorized by the FCC. The data covered the first six years of cellular service in the U.S. (Information Enterprises, 1991)

Fullerton (1998a) focused on ascertaining whether competitive behavior was occurring in these markets. Indicators of four types of competitive behavior were constructed, and the behavioral patterns compared among the various markets. He found that the patterns of behavior varied widely. Some markets exhibited patterns of strong competition, while others appeared to be virtually noncompetitive. From this

study, he concluded that duopoly market structure provides at least some of the necessary conditions for competition, but that duopoly structure alone is not sufficient to ensure competition.

In a follow-on study, Fullerton (1998b) used the same dataset to study the effect of ownership on competitive behavior in cellular telephone markets. Under FCC regulations, local wireline telephone providers were given the option of obtaining cellular licenses in their home operating areas. In all of the first 30 markets, the local telephone companies accepted this option and set up cellular operations. The second license in each market went to an outside firm, often a subsidiary of a regional Bell operating company from another region. Some of these licenses went to independent firms without outside ties, and some licenses went to a national firm that was not in the wireline telephone business at the time. Fullerton found strong evidence that local cellular operations owned by the same firm tend to have similar competitive practices, even against different competitors. However, the behavior patterns of local operators owned by different large firms varied widely. Thus, it was concluded the corporate strategy and culture have a strong influence on local cellular operator behavior, but that ownership by a large firm *per se* did not determine the pattern of behavior.

Economists have long known that conditions surrounding market entry may have a significant impact on potential and actual competition. Among the characteristics of entry that have attracted scholarly attention are ease and cost of entry, response of entrenched firms to entry, overt and implicit collusion between entrants and entrenched firms, and the timing of market entry.

Strategic business management theory suggests that the first firm in business in a market may have the so-called "first mover advantage" over later entrants, because it can build a foundation of market share, establish a reputation and enjoy lower costs due to the downward-sloping experience curve (Pearce & Robinson, 1985). The extent of this theoretical advantage will vary according to technology, costs of entry and other market- and industry-specific conditions.

According to Gardner, under the Cournot-Stackelberg model, the first mover has a clear advantage. Assuming that prices are constant and both suppliers face the same cost curves, the first firm to move (or enter) will gain a two-thirds share of the market, and customers will enjoy significantly lower prices, compared to a monopoly.

In the particular situation of the cellular telephone industry in the 1980s, manipulation of quantity was not an option. Once installed, a cellular system could accommodate a substantial level of telephone traffic, and it was a rarity in the early days of the industry for even single cells to be used to capacity for more than brief periods.

Because variations of output are not feasible in the short run, it can be concluded that the Bertrand-Stackelberg model is more applicable to the cellular telephone situation.

The Bertrand-Stackelberg model leads to a result just the opposite of Cournot-Stackelberg. The firm that moves last always has the advantage, because it has the opportunity to react to the previously announced first mover price. This regime, therefore, leads to a "second mover advantage". It has also been demonstrated that the Bertrand model inherently drives prices lower than the Cournot model (Gardner, 1995).

Price manipulation is not the only strategy utilized by firms engaged in rivalrous competition. Other commonly used techniques include product differentiation and advertising (Dewey, 1969; Smith, Grimm & Gannon, 1992). Advertising is often used by firms to achieve market segmentation. Other promotional techniques can also be

used, such as the multiplicity of pricing plans often evident in the cellular telephone industry. These would be promoted by advertising, of course.

If product differentiation is successfully introduced, the assumption that the products are fully substitutable is relaxed. This tends to mute the effects under both the Cournot and Bertrand models (Geroski, Phlips & Ulph, 1985; Gardner, 1995). In such a situation, it is less clear whether market entry timing will make a significant difference. Product differentiation under sequential move conditions can lead to a more surprising conclusion. A product that is perceived as being higher quality or offering more utility may bring a higher price in the market than its competitors. This may counteract the inherent tendency of the Bertrand-Stackelberg model to drive prices toward marginal cost (Gardner).

Dixit and Nalebuff (1991) offer a "follower" strategy for a firm that initially gains an advantage. The leading firm merely mimics the actions of the trailing one. Although the leader may not maximize revenues and profits, it can effectively stay ahead by doing exactly as the challenger does. Such a strategy would not appear to be limited to any particular technique, such as price cutting.

The widely discussed marketing phenomenon of price leadership offers yet another way of looking at the competitive situation. Conventional wisdom holds that price leadership can be exercised by a firm that dominates a market. Such a firm, because of its dominant position, can punish firms that do not follow its lead in setting prices. Such leadership, logically, could thwart the natural tendency of prices to move toward marginal cost under the Bertrand-Stackelberg model.

This conventional wisdom is challenged by Jacquemin (1987), who argues that the price leader firm is likely to be the less efficient firm, which cannot reduce its price below marginal cost. Competing firms will therefore accept the price leader's price and output decisions, knowing that their marginal costs are less and profits therefore greater than the price leader's.

Hypotheses

Strategic business theory, as well as some game theory, would indicate that the first firm in a market would have a strategic advantage, and would be able to use this advantage to exercise price leadership. The longer the period before the incumbent firm is challenged by a new entrant, the stronger its advantage ought to be. The more entrenched the incumbent firm is, the less need there should be for it to exercise strong competitive behavior. Under this scenario, the following behaviors would be expected:

H1: The longer the period that the incumbent firm enjoys before it is challenged, the less likely it is to use aggressive competitive tactics.

H2: The longer the period before the second firm enters the market, the greater the probability that it will be a price follower and refrain from aggressive competitive tactics.

The Bertrand-Stackelberg economic model, however, predicts exactly the opposite outcome from the foregoing. Under this model, the second firm to enter has the opportunity to study and react to the pricing strategy of its rival, and therefore has the second mover advantage. If this is the case we can expect:

H3: The longer the period before the second firm enters the market, the greater the probability that it will use aggressive tactics to invade the market. In turn, this increases the probability that the incumbent firm will respond aggressively.

Methodology

Using the proprietary dataset used in the earlier studies, the competitive behavior of individual firms is examined and compared with the timing of entry in 30 cellular telephone markets. For practical purposes, the number of markets is collapsed to 28, as the same firms competed against one another and posted identical prices in two sets of contiguous markets.

Using indices previously constructed by Fullerton (1998a, 1998b), three types of competitive behavior can be evaluated and quantified: price competition, product differentiation, and market segmentation. The results of these behaviors and characteristics can then be compared with the lag time in market entry to see if relationships are evident. The following are used as evidence of competitive behavior:

Pricing strategies

1. Aggressive reduction of cellular phone prices, or conversely, resisting the reduction of prices.
2. Undercutting rates offered by the competing firm in the market.

Product differentiation strategy

1. Offering more service features, particularly enhancements offered without extra charges.

Market segmentation strategy

1. Offering more pricing plans, to appeal to more finely defined segments of the market.

In previous studies, data that reflect these four behaviors were used to construct measures reflecting the intensity of the behaviors. Three different pricing packages were designed to determine the representative per-minute price for three customer profiles: Small, occasional customers, using 50 minutes or less per month; medium-use customers, using 200 minutes per month; and large customers, using 500 minutes per month. These rates were extracted for each profile for each firm for each year. Although some customers use far more than 500 minutes per month, in most markets and at most points in time the package that best served the 500-minute customer also best served larger customers. The customer price data were then used to construct measures of competitive behavior:

Price Performance Index

The Price Performance Index (PPI) is constructed to measure the price performance of each firm, adjusted for inflation as reflected in the Consumer Price Index (CPI). The PPI is computed for each year except the initial one, comparing that year's price for each customer profile with the year preceding. This comparison is then adjusted for that year's increase in the Consumer Price Index (CPI). The sign is reversed, so that prices that decrease have a positive sign, and those that rise are negative. Although price performance is not necessarily a direct sign of competitive behavior, cellular firms in the Fullerton (1998a) study generally reduced prices over the six-year period.

Price Difference Rating

The gap between prices charged by competing firms is an indication of their respective competitive strategies. Fullerton noted that price differences were frequent in some cellular markets and rare or nonexistent in others. Neoclassical economics focuses on pricing strategy as both a technique of vendors and a signaling mechanism

to other participants and observers. If a company is attempting to wrest market share from its competitor, we would expect it to use pricing strategy as a major tool.

Pricing strategy can serve other purposes, of course. If demand is inelastic, profits can be increased by increasing prices. In complex situations, firms may choose to manipulate prices, taking into consideration the possible strategic responses of their competitors (Brenner, 1987; Rasmusen, 1994).

The gaps between the prices that competing firms charge for comparable services may indicate their attempts to outmaneuver their competitors, while trying to maintain or increase profits. The size and persistence of price differences is one sign of the intensity of competition in a market, and the relative position of each participating firm is an indicator of its own competitive strategy.

Differences between posted prices for comparable service bundles of the two competing firms were tracked in each of the 30 cellular markets. A difference of 10 percent of the lower firm's price was arbitrarily selected as being significant and therefore indicative of serious competition. The number of times at which a 10 percent or more difference in price was recorded at each service level, as well as which firm posted the higher price at each point.

The 56 local operations were classified according to the following Price Difference Rating (PDR) classifications:

No Competition (NC): Prices for comparable service classes less than 10 percent different on at least 90 percent of reporting dates. Prices identical on at least 50 percent of reporting dates.

Low Competition (LC-1, LC-2, LC-3): Price differences of less than 10 percent on at least 90 percent of reporting dates, but different on more than 50 percent of dates. Firms designated LC-1 reported lower prices on 50 percent or more of reporting dates. LC-2 indicates neither firm consistently posted higher prices. LC-3 firms had higher prices on 50 percent or more of the reporting dates.

Moderate Competition (MC-1, MC-2, MC-3): Price differences of at least 10 percent on 10 percent to 59 percent of reporting dates. Firms designated MC-1 had lower prices on 50 percent or more of reporting dates. MC-2 indicates neither firm consistently posted higher prices. MC-3 firms had higher prices on 50 percent or more of the reporting dates.

High Competition (HC-1, HC-2, HC-3): Price differences of at least 10 percent on 60 percent or more of reporting dates. Firms designated HC-1 had lower prices on 50 percent or more of reporting dates. HC-2 indicates neither firm consistently posted higher prices. HC-3 firms had higher prices on 50 percent or more of the reporting dates

Restated, the coding designations are as follows from highest to lowest level of competition:

HC-1 Firm posting lower prices in market with high price competition.
HC-2 Market with high price competition, no firm consistently high or low.
HC-3 Firm posting higher prices in market with high price competition.
MC-1 Firm posting lower prices in market with moderate price competition.
MC-2 Market with moderate price competition, no firm consistently high or low.
MC-3 Firm posting higher prices in market with moderate price competition.
LC-1 Firm posting lower prices in market with low price competition.
LC-2 Market with low price competition, no firm consistently high or low.

LC-3 Firm posting higher prices in market with low price competition.
NC No significant price competition in market.

Number of Pricing Plans

Most cellular firms began business with a small number of pricing plans, usually no more than three, and often only one. In their efforts to segment their customers into identifiable groups, virtually all firms substantially increased the number of pricing plans, until several were offering eight or more. In some cases, firms reduced the number of pricing plans after several years.

Use of multiple pricing plans is typical of a market segmentation strategy, and has often been applied in comparable utility and transportation industries. Segmentation may be used as a competitive strategy, or as a strategy to delineate niche markets or strengthen price levels by taking advantage of inelastic demand.

The absolute number of pricing plans offered by each firm at the retail level was used as the pricing plan indicator.

Free Features Index

During the early expansion period of cellular, it became increasingly common for firms to offer optional extra features as enhancements to their services. Examples of these enhancements are call waiting, call forwarding, voice mail, and special billing. In many cases, these were comparatively simple and inexpensive software upgrades, but customers found them to be of value. By the end of the period, all 56 firms were offering a variety of such special features, and many offered 8 to 10 or more. In some cases, vendors charged extra for such features, but many were also offered free, presumably for promotional purposes.

Because cellular service is quite standardized, operating within rigid technical constraints, it is difficult to differentiate the product. Offering special features, especially without charge, may be regarded as one method of differentiating a service from its competitor.

The free special feature strategy is operationalized in the Free Features Index (FFI). This simple index is computed by dividing the number of services offered free by the total number of special services offered. The higher the index, the more vigorously the firm is attempting to differentiate its service by offering free service enhancements.

Following computation of the four measures, the 56 local cellular firms in the first 30 markets are rank ordered on the basis of the Price Performance Index, Price Differences Ratings, Number of Pricing Plans, and Free Features Index. Results are shown in Tables 2-5. Rank ordering is used to assure comparability of the data.

The 28 markets are rank ordered according to the lag time between startup of operations by the first firm and operations startup by the second one. The firms are then divided into incumbents – the first firms to enter the markets – and challengers – the second firms to enter. In the case of the two markets where both firms started on the same day, the wireline firm is arbitrarily classified as the incumbent and the non-wireline firm classified as the challenger. The lag time is measured in months.

In the few cases where markets had identical lag times, firms are listed alphabetically.

The rankings of the firms on the four indicators of competition are then compared by correlation with the rankings of the firms in terms of the lag time starting telephone operations. The results indicate support or lack of it for the three hypotheses.

Findings

H1: The most aggressive tactic covered in this study was price undercutting, operationalized as the Price Difference Rating. Overall, challenger firms showed a slightly higher tendency to use this tactic.

Among incumbent firms, there was a correlation coefficient of .2143 between the Price Difference Rating rank order data and the lag time rank order data. This indicates a slight tendency for incumbent firms to use this tactic more aggressively if there is a long lag time before the challenger enters the market. By definition, of course, the PDR does not come into play until the challenger enters.

A strong negative correlation between PDR and lag time would give support for Hypothesis 1. The weak positive correlation exhibited provides mild support to disprove the hypothesis.

The Price Performance Index, tracking the long-term trend for prices to fall after adjustment for inflation, is a less robust indicator of competition, although price fluctuations may be influenced by competition.

A very weak positive correlation of .1051 was found between the PPI and lag time results. This constitutes very weak evidence to disprove the hypothesis.

Market segmentation is less clear cut as a technique of strenuous competition. This tactic was operationalized by ranking the number of pricing plans offered. Although most firms in the study offered multiple plans during most of the period, there was only a slight tendency among incumbents to use the tactic more aggressively to combat late entrants. The coefficient of correlation with the time lag was only .04559 for incumbent firms. This is nearly neutral, so provides no support for Hypothesis 1.

Offering extra features is one of the few ways that cellular telephone firms can differentiate their service from their competitors. This is operationalized by the Free Features Index, which gives extra weight to features offered without charge. This index ranking had a negative correlation of –0.2271 with the entry time lag, indicating weak support for the hypothesis.

A summation of all four correlations with the time lag offers no support for Hypothesis 1.

H2: Challenger firms were less likely than incumbents to aggressively undercut when the lag time before entry was long. A positive correlation of .1691 was found, indicating there was a mild tendency in this direction. This constitutes weak evidence to disprove the hypothesis.

Similarly, only a slight tendency was found for late challengers to reduce prices more over the long term. A positive correlation coefficient of .0810 was found between the PPI and lag time. This might well be considered neutral, and provides no support for the hypothesis.

Late challengers showed no more tendency to use multiple plans to segment markets than early ones. A negative correlation coefficient of .0011 was found – virtually neutral.

Late-entering challenger firms did show a slight tendency to make more use of product differentiation through free features than early entrants. The positive correlation coefficient was .1067, which indicates rather weak evidence against the hypothesis.

Conclusion: No support was found for the hypothesis, and some weak evidence was found to disprove it.

H3: The correlation coefficient results previously cited provide only weak support for this hypothesis, in the areas of pricing strategy and product differentiation. Because the strongest correlations for challenger firms were only .1691 for the PDR and .1067 for the FFI, it can only be said that a very weak relationship was detected.

Overall, it must be concluded the no significant support was found for any of the three hypotheses based on the length of the lag time between the time the first cellular firm entered the market and the second one. Apparently the entry lag time was not a serious factor in the presence or absence of competitive behavior in these markets.

Discussion

In a series of studies, the duopoly market structure of the early cellular telephone industry (1984-91) has been examined, to determine whether competition can exist under duopoly, and what factors determine whether a duopoly market will be competitive.

Fullerton (1998a) determined that a number of the original 30 major markets opened for cellular service in the U. S. showed evidence of strenuous competitive behavior. Across the entire sample, there was a steady downward tendency for cellular service prices over this period, as well as repeated evidence of behavior that must be construed as competitive. However, not every market behaved in the same way, and prices were flat in several markets.

A second study (Fullerton 1988b) examined the question of how parent company ownership influenced the competitive behavior of local cellular firms. It was determined that local cellular operators owned by a single larger organization, such a Bell regional operating company, were likely to exhibit similar competitive behavior, even against different competitors. Cellular operations owned by different parent companies exhibited substantial differences in local strategies. Clearly, ownership by a large company did not, in itself, determine the intensity of competitive behavior.

Finally, the study reported here was designed to determine what effect, if any, the length of time between startup of the two local cellular firms might have on the competitive situation. Correlations between four competitive indicators and lag time data were so weak as to indicate that lag time had little or no effect on competitive behavior.

The conclusion can be drawn that neither ownership patterns nor entry timing have a substantial influence on the intensity of competitive behavior in duopoly cellular telephone markets

Future Research

Although the available dataset with pricing and other information is quite robust, it has some clear limitations. Basic theory of the firm assumes that a major objective of the firm under oligopoly is to increase market share. Unfortunately, data on market share in the cellular telephone industry is proprietary and exceedingly hard to obtain. Unless and until such data become available, it will be difficult to further extend the

study of duopoly structure using the early cellular telephone industry as a field experiment.

The cellular industry has broadened into the wireless telephone industry with the addition of new bands and services made available by the FCC. In major markets , this is no longer a duopoly industry, but it is a severely restricted oligopoly. If adequate pricing and market share information can be obtained, this industry would be nearly ideal for the study of oligopoly because its service areas and competitors are so clearly delineated.

On a broader scale, the competitive situation between the developing wireless industry and the established wireline and long distance sectors is very worthy of study. The telephone industry is undergoing tremendous growth and change as demand and technology develop simultaneously. Media economists could learn much about firms and markets by observing this industry.

Works Cited

Brenner, R. (1987). Rivalry: In business, science, among nations. Cambridge: Cambridge University Press.

Cowling, K. (1982). Monopoly capitalism. New York: John Wiley & Sons.

Dixit, A., & Nalebuff, B.. (1991). Thinking strategically. New York: W. W. Norton.

Dewey, D. (1969). The theory of imperfect competition. New York and London: Columbia University Press.

Fullerton, H. S. (1998a). Duopoly and competition: The case of American cellular telephone. Telecommunications Policy, 22 (7), August 1998.

Fullerton, H. S. (1998b). Parent company influence on local market competition in cellular telephone. Paper presented to the Association for Education in Journalism and Mass Communication, Baltimore, MD, Aug. 8, 1998.

Gardner, R. (1995). Games for business and economics. New York: John Wiley & Sons.

Geroski, P. A., Phlips, L., & Ulph, A. (1985). Oligopoly, competition and welfare: Some recent developments. Journal of Industrial Economics, 33, 369-386.

Information Enterprises (1991). A history of cellular airtime pricing, January 1985-January 1991. Bland, MO: Information Enterprises.

Jacquemin, A. (1987). The new industrial organization. (Translated by Fatemeh Mehta). Cambridge, MA and London: MIT Press.

Pearce, J. A., II, & Robinson, R. B., Jr. (1985). Strategic management: Strategy formulation and implementation. Homewood, IL: Richard D. Irwin Inc.

Rasmusen, E. (1994). Games and information: An introduction to game theory, 2nd ed. Cambridge, MA and Oxford: Blackwell.

Smith, K. G., Grimm, C. M. & Gannon, M.J. (1992) Dynamics of competitive strategy. Newbury Park, CA: SAGE.

Table 1
Lag Times for Market Entry
In the First 30 Cellular Telephone Markets

Market	Date of First entry	Date of 2nd entry	Difference (months, rounded)
Atlanta	9/5/84	2/5/87	29
Baltimore-Wash	12/16/83	4/2/84****	4.5
Boston	1/1/85	1/1/85	0
Buffalo	4/16/84	6/1/84	1.5
Chicago	10/3/83***	1/7/85	15
Cincinnati	11/5/84	8/8/86	21
Cleveland	12/18/84	6/1/85	5.5
Dallas	7/31/84	3/2/86	19
Denver	7/10/84	11/21/86	28.5
Detroit	9/12/84	8/1/85	10.5
Houston	9/28/84	5/16/86	19.5
Indianapolis	2/3/84	5/3/84	3
Kansas City	8/1/84	2/14/86	18.5
Los Angeles	6/13/84	3/27/87	21.5
Miami	5/25/84	3/7/87	33.5
Milwaukee	6/1/84	8/1/84	2
Minneapolis	6/1/84	7/23/84	1.5
New Orleans	9/1/84	9/8/85	12
New York	6/15/84	4/5/86	22.5
Philadelphia	7/12/84	2/12/86	19
Phoenix	8/15/84	3/17/86	19
Pittsburgh	12/10/84	12/19/86	24.5
Portland	2/27/85	7/18/85	4.5
San Diego	8/13/85*	4/11/86	8
San Francisco-San Jose	4/2/85	9/26/86	18
Seattle	7/12/84	12/2/85	16.5
St. Louis	7/16/84	7/16/84	0
Tampa	11/30/84	9/25/87**	34

* Last market to get first service
** Last market to get second service
*** First market to get service
****First market to get second service

Table 2 - Market entry timing lag compared to pricing aggressiveness of firm

(Price Difference Rating rank)

Market	Lag (mos.)	Lag rank	Incumbent firms	PDR	PDR rank	Lag rank	Challenger firms	PDR	PDR rank	Lag rank
BOSTON	0	1	MILWAUKEE - NWL	HC-1	1	6	SAN DIEGO - NWL	HC-1	1	10
ST. LOUIS	0	2	HOUSTON - WL	HC-1	2	20	CHICAGO - NWL	HC-1	2	13
BUFFALO	1.5	3	MINNEAPOLIS - WL	HC-1	3	4	DETROIT - NWL	HC-1	3	11
MINNEAPOLIS	1.5	4	DENVER - WL	HC-2	4	25	NEW YORK - NWL	HC-1	4	23
MILWAUKEE	2	5	INDIANAPOLIS - NW	HC-2	5	6	PHOENIX - NWL	HC-1	5	19
INDIANAPOLIS	3	6	SAN DIEGO - WL	HC-3	6	10	DENVER - NWL	HC-2	6	25
BALT-WASH	4.5	7	CHICAGO - WL	HC-3	7	13	INDIANAPOLIS - WL	HC-2	7	6
PORTLAND	4.5	8	DETROIT - WL	HC-3	8	11	MILWAUKEE - WL	HC-3	8	5
CLEVELAND	5.5	9	NEW YORK - WL	HC-3	9	23	HOUSTON - NWL	HC-3	9	20
SAN DIEGO	8	10	PHOENIX - WL	HC-3	10	19	MINNEAPOLIS - NWL	HC-3	10	4
DETROIT	10.5	11	MIAMI - WL	MC-2	11	27	BALT-WASH - WL	MC-1	11	7
NEW ORLEANS	12	12	BUFFALO - WL	MC-2	12	3	KANSAS CITY - NWL	MC-1	12	16
CHICAGO	15	13	SEATTLE - WL	MC-2	13	14	MIAMI - NWL	MC-2	13	27
SEATTLE	16.5	14	PORTLAND - WL	MC-2	14	8	BUFFALO - NWL	MC-2	14	3
SAN FRAN-S'JOSE	18	15	BOSTON - WL	MC-2	15	1	SEATTLE - NWL	MC-2	15	14
KANSAS CITY	18.5	16	TAMPA - WL	MC-2	16	28	PORTLAND - NWL	MC-2	16	8
DALLAS	19	17	BALT-WASH - NWL	MC-3	17	7	BOSTON - NWL	MC-2	17	1
PHILADELPHIA	19	18	KANSAS CITY - WL	MC-3	18	16	TAMPA - NWL	MC-2	18	28
PHOENIX	19	19	CLEVELAND - WL	LC-2	19	9	NEW ORLEANS - NWL	LC-1	19	12
HOUSTON	19.5	20	NEW ORLEANS - WL	LC-3	20	12	CLEVELAND - NWL	LC-2	20	9
CINCINNATI	21	21	CINCINNATI - WL	NC	21	21	CINCINNATI - NWL	NC	21	21
LOS ANGELES	21.5	22	DALLAS - WL	NC	22	17	DALLAS - NWL	NC	22	17
NEW YORK	22.5	23	LOS ANGELES - WL	NC	23	22	LOS ANGELES - NWL	NC	23	22
PITTSBURGH	24.5	24	ST. LOUIS - WL	NC	24	2	ST. LOUIS - NWL	NC	24	2
DENVER	28.5	25	PITTSBURGH - WL	NC	25	24	PITTSBURGH - NWL	NC	25	24
ATLANTA	29	26	PHILADELPHIA - WL	NC	26	18	PHILADELPHIA - NWL	NC	26	18
MIAMI	33.5	27	ATLANTA - WL	NC	27	26	ATLANTA - NWL	NC	27	26
TAMPA	34	28	SAN FRAN-S'JOSE WL	NC	28	15	SAN FRAN-S'JOSE NW	NC	28	15

0.214251165 **Incumbent firms -- correlation coefficient of lag time rank and PDR rank**

0.169129721 **Challenger firms -- correlation coefficient of lag time rank and PDR rank**

Table 3 - Market entry timing lag compared to pricing aggressiveness of firm
(Price Performance Index rank)

Market	Lag (mos.)	Lag rank	Incumbents	PPI Rank	Lag rank	Challengers	PPI Rank	Lag rank
BOSTON	0	1	INDIANAPOLIS - NW	1	6	PORTLAND - NWL	1	8
ST. LOUIS	0	2	CHICAGO - WL	2	13	PITTSBURGH - NWL	2	24
BUFFALO	1.5	3	HOUSTON - WL	3	20	BOSTON - NWL	3	1
MINNEAPOLIS	1.5	4	MINNEAPOLIS - WL	4	4	DALLAS - NWL	4	17
MILWAUKEE	2	5	ATLANTA - WL	5	26	SAN DIEGO - NWL	5	10
INDIANAPOLIS	3	6	NEW ORLEANS - WL	6	12	INDIANAPOLIS - WL	6	6
BALT-WASH	4.5	7	CLEVELAND - WL	7	9	KANSAS CITY - NWL	7	16
PORTLAND	4.5	8	DETROIT - WL	8	11	PHOENIX - NWL	8	19
CLEVELAND	5.5	9	BALT-WASH - NWL	9	7	DENVER - NWL	9	25
SAN DIEGO	8	10	MIAMI - WL	10	27	ST. LOUIS - NWL	10	2
DETROIT	10.5	11	PORTLAND - WL	11	8	ATLANTA - NWL	11	26
NEW ORLEANS	12	12	NEW YORK - WL	12	23	LOS ANGELES - NWL	12	22
CHICAGO	15	13	TAMPA - WL	13	28	MILWAUKEE - WL	13	5
SEATTLE	16.5	14	MILWAUKEE - NWL	14	5	HOUSTON - NWL	14	20
SAN FRAN-S'JOSI	18	15	DENVER - WL	15	25	MINNEAPOLIS - NWL	15	4
KANSAS CITY	18.5	16	PITTSBURGH - WL	16	24	CHICAGO - NWL	16	13
DALLAS	19	17	ST. LOUIS - WL	17	2	TAMPA - NWL	17	28
PHILADELPHIA	19	18	BUFFALO - WL	18	3	NEW ORLEANS - NWI	18	12
PHOENIX	19	19	PHOENIX - WL	19	19	CLEVELAND - NWL	19	9
HOUSTON	19.5	20	BOSTON - WL	20	1	NEW YORK - NWL	20	23
CINCINNATI	21	21	SEATTLE - WL	21	14	PHILADELPHIA - NWI	21	18
LOS ANGELES	21.5	22	DALLAS - WL	22	17	SEATTLE - NWL	22	14
NEW YORK	22.5	23	CINCINNATI - WL	23	21	DETROIT - NWL	23	11
PITTSBURGH	24.5	24	KANSAS CITY - WL	24	16	MIAMI - NWL	24	27
DENVER	28.5	25	PHILADELPHIA - WL	25	18	BALT-WASH - WL	25	7
ATLANTA	29	26	SAN DIEGO - WL	26	10	BUFFALO - NWL	26	3
MIAMI	33.5	27	LOS ANGELES - WL	27	22	CINCINNATI - NWL	27	21
TAMPA	34	28	SAN FRAN-S'JOSE WI	28	15	SAN FRAN-S'JOSE NW	28	15

0.105090312 **Incumbent firms -- correlation coefficient of lag time rank and PPI rank**

0.081007115 **Challenger firms -- correlation coefficient of lag time rank and PPI rank**

Table 4 - Market entry timing lag compared to market segmentation strategy of firm

(Number of Plans rank)

Market	Lag (mos.)	Lag rank	Incumbents	Plans rank	Lag rank	Challengers	Plans rank	Lag rank
BOSTON	0	1	LOS ANGELES - WL	1	22	LOS ANGELES - NWL	1	22
ST. LOUIS	0	2	BALT-WASH - NWL	2	7	MIAMI - NWL	2	27
BUFFALO	1.5	3	CINCINNATI - WL	3	21	ST. LOUIS - NWL	3	2
MINNEAPOLIS	1.5	4	BUFFALO - WL	4	3	KANSAS CITY - NWL	4	16
MILWAUKEE	2	5	DETROIT - WL	5	11	ATLANTA - NWL	5	26
INDIANAPOLIS	3	6	CHICAGO - WL	6	13	SEATTLE - NWL	6	14
BALT-WASH	4.5	7	INDIANAPOLIS - NWL	7	6	BALT-WASH - WL	7	7
PORTLAND	4.5	8	BOSTON - WL	8	1	BUFFALO - NWL	8	3
CLEVELAND	5.5	9	PHILADELPHIA - WL	9	18	CHICAGO - NWL	9	13
SAN DIEGO	8	10	TAMPA - WL	10	28	PORTLAND - NWL	10	8
DETROIT	10.5	11	HOUSTON - WL	11	20	DENVER - NWL	11	25
NEW ORLEANS	12	12	PHOENIX - WL	12	19	DALLAS - NWL	12	17
CHICAGO	15	13	KANSAS CITY - WL	13	16	PHILADELPHIA - NWL	13	18
SEATTLE	16.5	14	MILWAUKEE - NWL	14	5	MINNEAPOLIS - NWL	14	4
SAN FRAN-S'JOSE	18	15	NEW YORK - WL	15	23	DETROIT - NWL	15	11
KANSAS CITY	18.5	16	SEATTLE - WL	16	14	MILWAUKEE - WL	16	5
DALLAS	19	17	ST. LOUIS - WL	17	2	PITTSBURGH - NWL	17	24
PHILADELPHIA	19	18	DENVER - WL	18	25	INDIANAPOLIS - WL	18	6
PHOENIX	19	19	MIAMI - WL	19	27	CINCINNATI - NWL	19	21
HOUSTON	19.5	20	ATLANTA - WL	20	26	BOSTON - NWL	20	1
CINCINNATI	21	21	PITTSBURGH - WL	21	24	PHOENIX - NWL	21	19
LOS ANGELES	21.5	22	MINNEAPOLIS - WL	22	4	CLEVELAND - NWL	22	9
NEW YORK	22.5	23	SAN DIEGO - WL	23	10	HOUSTON - NWL	23	20
PITTSBURGH	24.5	24	NEW ORLEANS - WL	24	12	NEW YORK - NWL	24	23
DENVER	28.5	25	PORTLAND - WL	25	8	TAMPA - NWL	25	28
ATLANTA	29	26	CLEVELAND - WL	26	9	NEW ORLEANS - NWL	26	12
MIAMI	33.5	27	DALLAS - WL	27	17	SAN FRAN-S'JOSE NWL	27	15
TAMPA	34	28	SAN FRAN-S'JOSE WL	28	15	SAN DIEGO - NWL	28	10

0.045977011 Incumbent firms -- correlation coefficient of lag time rank and plans rank

-0.001094691 Challenger firms -- correlation coefficient of lag time rank and plans rank

Table 5 - Market entry timing lag compared to product differentiation strategy of firm (Free Features Index rank)

Market	Lag (mos.)	Lag rank	Incumbents	FFI rank	Lag rank	Challengers	FFI rank	Lag rank
BOSTON	0	1	PORTLAND - WL	1	8	ATLANTA - NWL	1	26
ST. LOUIS	0	2	PHILADELPHIA - WL	2	18	BALT-WASH - WL	2	7
BUFFALO	1.5	3	DENVER - WL	3	25	BOSTON - NWL	3	1
MINNEAPOLIS	1.5	4	SEATTLE - WL	4	14	BUFFALO - NWL	4	3
MILWAUKEE	2	5	PITTSBURGH - WL	5	24	CHICAGO - NWL	5	13
INDIANAPOLIS	3	6	TAMPA - WL	6	28	CINCINNATI - NWL	6	21
BALT-WASH	4.5	7	MINNEAPOLIS - WL	7	4	CLEVELAND - NWL	7	9
PORTLAND	4.5	8	BALT-WASH - NWL	8	7	DALLAS - NWL	8	17
CLEVELAND	5.5	9	SAN FRAN-S'JOSE WL	9	15	DENVER - NWL	9	25
SAN DIEGO	8	10	CINCINNATI - WL	10	21	DETROIT - NWL	10	11
DETROIT	10.5	11	PHOENIX - WL	11	19	HOUSTON - NWL	11	20
NEW ORLEANS	12	12	NEW YORK - WL	12	23	INDIANAPOLIS - WL	12	6
CHICAGO	15	13	LOS ANGELES - WL	13	22	KANSAS CITY - NWL	13	16
SEATTLE	16.5	14	HOUSTON - WL	14	20	LOS ANGELES - NWL	14	22
SAN FRAN-S'JOSE	18	15	DETROIT - WL	15	11	MIAMI - NWL	15	27
KANSAS CITY	18.5	16	BUFFALO - WL	16	3	MILWAUKEE - WL	16	5
DALLAS	19	17	CHICAGO - WL	17	13	MINNEAPOLIS - NWL	17	4
PHILADELPHIA	19	18	CLEVELAND - WL	18	9	NEW ORLEANS - NWL	18	12
PHOENIX	19	19	INDIANAPOLIS - NWI	19	6	NEW YORK - NWL	19	23
HOUSTON	19.5	20	NEW ORLEANS - WL	20	12	PHILADELPHIA - NWL	20	18
CINCINNATI	21	21	BOSTON - WL	21	1	PHOENIX - NWL	21	19
LOS ANGELES	21.5	22	SAN DIEGO - WL	22	10	PITTSBURGH - NWL	22	24
NEW YORK	22.5	23	KANSAS CITY - WL	23	16	PORTLAND - NWL	23	8
PITTSBURGH	24.5	24	ATLANTA - WL	24	26	SAN DIEGO - NWL	24	10
DENVER	28.5	25	DALLAS - WL	25	17	SAN FRAN-S'JOSE NW	25	15
ATLANTA	29	26	ST. LOUIS - WL	26	2	SEATTLE - NWL	26	14
MIAMI	33.5	27	MIAMI - WL	27	27	ST. LOUIS - NWL	27	2
TAMPA	34	28	MILWAUKEE - NWL	28	5	TAMPA - NWL	28	28

-0.227148331	Incumbent firms -- correlation coefficient of lag time rank and FFI rank
0.106732348	Challenger firms -- correlation coefficient of lag time rank and FFI rank

RECEIVED
JUL 1 4 2000

How magazines covered media companies' merger: A case of the evolution of Time Inc.

Jaemin Jung
Doctoral Student
College of Journalism and Communications
University of Florida
Gainesville, FL 32611

Paper presented to Media Management and Economics Division of
The Association for Education in Journalism and Mass Communication

Correspondence: Weimer Hall, PO Box 118400, Gainesville, FL 32611-8400
(352) 271-7650
jaeminj@ufl.edu

The author appreciates Dr. Wayne Wanta's help from the conception to the end.

How magazines covered media companies' merger: A case of the evolution of Time Inc.

Abstract

The purpose of this study was to examine how newsmagazines covered media companies' mergers. Specifically, the coverage of three mergers involving Time Inc. was content analyzed to see differences based on the ownership and magazine type. The findings suggest that Time and Fortune showed favoritism toward their parent company in terms of valence on merger, focused company, amount of coverage, and usage of visuals. The other results showed the difference in frames between general newsmagazines and business newsmagazines.

Like other businesses, media companies have a right to pursue profit as a private organization. In fact, whether operating in local television, newspaper, radio, magazine, or network television, at the heart of this business is the logic of the marketplace (McManus, 1994).

Based on this notion, it is natural that media companies have merged and produced multi-media conglomerates to seek more profit. However, it is an ominous trend that media ownership is concentrated into fewer and fewer hands.

Bagdikian (1997) reports that with each passing year and each new edition of his book, *Media Monopoly*, the number of controlling firms in all these media has shrunk: from fifty corporations in 1984 to twenty six in 1987, followed by twenty three in 1990, and then, as the borders between the different media began to blur, to less than twenty in 1993. In 1996, the number of media corporations with dominant power in society was closer to ten. Since then, three out of the remaining ten firms were merged and changed their owners.

If media organizations involved in mergers cover the mergers more positively and more extensively than other media organizations, this would suggest a strong organizational influence on news media content.

The purpose of this study is to examine how the most popular newsmagazines in the U.S. covered media companies' mergers, especially, focusing on the evolution of Time Inc.'s three merger cases. The merger of Time Inc. and Warner Communications Inc in 1989 was the start of a series. In September 1995, Time Warner Inc. and Turner Broadcasting System Inc. were merged with the resulting company being the largest in the world media sector with revenues of more than $ 20 billion at the end of the year (now it comes to almost $ 27 billion). Again, there was another giant merger between AOL and Time Warner in the wake of 2000. Time Inc.,

founded in 1923, the nation's oldest and largest circulating newsmagazine company, became a small part of the conglomerate now called AOL Time Warner.

Three general newsmagazines -- Time (owned by AOL Time Warner), Newsweek, U.S. News & World Report -- and three business newsmagazines -- Fortune (Owned by AOL Time Warner), BusinessWeek, The Economist -- will be examined to identify the content covered and whether the framing and amount of coverage vary based on ownership and magazine type. In addition, magazines have a stronger visual component with many photos and graphics. Therefore, visuals accompanying stories are another important aspect of coverage that will be examined here.

In general, magazine subscribers have invested extra money and time to supplement knowledge already acquired from daily newspapers and broadcast media. In other words, the newsmagazine subscriber is looking more for the "why" and "how" of a story than for the "who," "when," and "where" (Buckman, 1993). In case of special magazines, the audiences pursue more specific information. When a merger is announced, it would be covered more extensively in newsmagazines than in other daily based media. Thus, an examination of newsmagazines is especially important.

Literature Review

While it is hard to find a direct study on newsmagazine ownership's influence on content, there is considerable related research to be reviewed for this study.

Five decades have passed since White (1950) suggested that journalists act as gatekeepers of messages. In his study on the influence on news content, he explained that journalists select from among the day's events those that will become news. His conclusion that Mr. Gates was

subjective in his news judgement led to a long line of research examining the role of the gatekeeper in the news production process. Breed (1955), for example, studied how journalists become socialized to their jobs and concluded that the primary news organization objective -- to get the news -- can override individual disagreements over professional concerns with objectivity. Tuchman (1972) meanwhile examined journalists' notions of objectivity as strategic ritual. The major findings of these classic studies were that: reporter routines are deeply embedded in the structure of beat systems and events are identified as news through a process of bureaucratically manageable practices. Since then, an increasing number of studies have focused on the ways in which media workers and their employers, as well as organizational structures and society itself, affect media content (Shoemaker and Reese, 1996).

Swisher and Reese (1992) compared newspapers in both tobacco and non-tobacco growing regions. Modest differences in support of tobacco were found in headline slant and in use of tobacco industry sources. They considered economic influence in conjunction with the routines of news work, in particular, the strategic ritual of balance.

Individual workers and their routines must be subordinated to the larger organization and its goals. All members of an organization must answer to the owners and top management, who coordinate the entire enterprise. The ultimate power of organization-level lies in owners, who set policy and enforce it (Shoemaker and Reese, 1996). The influence of ownership on content has been an important concern in the news media.

An editor at Simon & Schuster, a division of Gulf+Western, proposed publication of a book in 1979 that was critical of large corporations. Even though the book did not mention Gulf+Western by name, the president of Simon & Schuster rejected the proposed book because it made all corporations look bad (Bagdikian, 1997).

The merger of Time Inc. and Warner Communications Inc. in 1989 provides a good example of how the changing structure of media companies affects media content. One of the primary issues raised by the merger was the impact on journalistic integrity and editorial independence of Time Inc.'s magazines. As editor-in-chief of Time Inc., Jason McManus had decided not to cover the March 4 Time Warner merger announcement, a story big enough to be covered by both the New York Times and Newsweek. McManus later said it may have been a bad decision (Ciabattari, 1989).

Michael Eisner, chairman of Disney, which owns ABC, said in an NPR interview in September 1998: "I would prefer ABC not to cover Disney. I think it's inappropriate." Shortly thereafter, ABC news killed a critical report about Walt Disney World. General Electric, which owns NBC, has taken similar intrusive actions (Manday, 1999).

The newspaper industry has had its share of high-profile ownership changes as well. Rupert Murdoch bought the Chicago Sun-Times in 1984 and made it more sensationalistic, like his New York Post and Boston Herald. A large number of Sun-Times staffers quit, including the top management. Liberal columnists Ellen Goodman and Garry Wills were dropped (Shoemaker and Reese, 1996).

A study of news coverage before and after a takeover of a local paper by Gannett Company, the country's largest chain, found that the Knoxville Journal significantly increased its proportion of positive assertion toward the Knoxville World's Fair project after the change of ownership (Browning, Grierson, & Howard, 1984).

Recent news making studies have investigated structural influence on special journalistic practices. Coulson (1994) studied the impact of ownership on newspaper quality. He showed that

journalists at independent papers rated their papers' commitment to quality local coverage as excellent more often than group-owned newspapers.

Fradgley & Niebauer (1999) examined the relationship between the type of newspaper ownership and news reporting patterns. Examinations showed that independently owned dailies covered stories that required more reportorial effort than did dailies owned by conglomerates.

Another important feature of ownership patterns today is the enormous size of media conglomerates. Tracing the organizational connections among media reveals greater reasons for concern over the homogenization of content and ownership as an organizational influence.

Despite their long history and large number of subscribers -- 4,060,074 for Time, 3,153,281 for Newsweek, 2,224,003 for U.S. News and Report, 908,953 for Business Week, 781,883 for Fortune, and 307,266 for The Economist -- relatively little research has been done exploring newsmagazines (Gale Research Co. 1999).

Gerlach (1987) found that magazine research in Journalism Quarterly came to 116 articles in the 20 year period from 1964 through 1983 which is 6% of the 1,917 articles published.

Weekly newsmagazines must be approached differently from newspapers not only because of the obvious differences in format, but also because of the weekly rather than daily deadline and the difference in the nature of the newsmagazine audience. Therefore, more research on newsmagazines is needed.

One of the pertinent projects for this study was conducted by Lee and Hwang (1997). They compared Time and Newsweek to examine the impact of media ownership. Their findings suggested that conglomerate ownership could force a leading newsmagazine to show favoritism toward the products of its parent corporation.

Most have been confined to the three U.S. newsmagazines. Rich (1981), for example, calculated the 'comprehensiveness' of coverage by these three media of two major science stories of the 1970s. He showed Time was the most complete of the three newsmagazines.

In a content analysis of 185 articles sampled from the three U.S. newsmagazines, Simmon and Lowry (1990) revealed no distinctions among the three newsmagazines in reporting on terrorists.

Andsager and Powers (1999) analyzed 127 articles on breast cancer from three newsmagazines and four women's magazines to examine whether they focused on social or economic issues. They concluded that women's magazines offered more personal stories and comprehensive information.

A study of how eight newsmagazines in six countries covered the same events --elections in the six countries -- found that geographic proximity was an important newsworthiness factor, but that other cultural, political, and economic ties also affected coverage (Buckman, 1993).

Martin (1991) made a comparison of magazine types through the content analysis of coverage of one science story. The study found that science newsmagazines did not uniformly devote more space to the breaking news science story than did popular newsmagazines.

Visuals are often discounted or ignored in word-oriented journalism. However, they perform important roles in communication by conveying realism, credibility, and attitudes. Newsmagazines especially use visual information including photos and graphics.

A study pointed out that photographs are popular with readers and call attention to news stories, highlighting the importance of visuals (Baxter, Quarles, and Kosak, 1978).

Moriarty and Popovich (1991) examined the photographic coverage of 1988 U.S. election by the three magazines. They concluded that Bush and Quayle received more visual and more favorable coverage. But their study did not scrutinize textual coverage.

An agenda-setting experiment by Wanta (1986) found that the size of photos in newspapers could have an immediate influence on readers. The study found that editors have the power to raise their reader's salience on certain issues over a short period of time merely by increasing the size of photographs.

Waldman and Devitt (1998) presented the results of a content analysis of photographs appearing in five major newspapers during the 1996 presidential campaign. They argued for the presence of a strategic bias benefiting the front-runner.

Based on the previous research, ownership's influence on content will be examined through the following questions 1, 2, and 3. In addition content difference in magazine type will be examined through the following questions 4 and 5.

Q 1: Did magazines involved in a merger cover the merger more positively than other magazines did?

Q 2: Did magazines involved in a merger focus on their parent company both in text and in visuals?

Q 3: Did magazines involved in a merger devote more space to the merger news?

Q 4: Did business newsmagazines devote more space to merger news than general newsmagazines did?

Q 5: Did business newsmagazines frame more economic and industrial aspects to merger news than general newsmagazines did?

Method

To analyze how magazines covered media companies' mergers, six magazines were examined. The top three general newsmagazines were selected: Time, Newsweek, and U.S. News&World Report. Three business newsmagazines also were selected: Fortune, Business Week, and The Economist. Time and Fortune belong to Time Inc., which is a part of AOL Time Warner. In case of The Economist, because it is originally published at U.K., the U.S. edition was used in this study. Although Fortune is a biweekly magazine, it's similar to the other weekly magazines analyzed here in terms of quantity (number of pages except advertising) and format (three columns in a page). In addition, it is a primary business newsmagazine owned by AOL Time Warner.

The contents analyzed include texts and visuals such as photos and graphics of three merger cases. All articles covering the three mergers for these specific years were included in this analysis: Time Inc. and Warner communications (1989), Time Warner Inc. and Turner Broadcasting System (1995), and AOL and Time Warner (2000). Those three deals were among top 10 U.S. media mergers ranked by value, according to Thomson Financial Securities Data (Mermigas, 2000).

In March 4, 1989, Time Inc. and Warner Communications agreed to merge to form America's largest media and entertainment company. Two issues of all magazines immediately after the announcement were chosen.

In the first week of September in 1995, there was an unofficial announcement on a merger between Time Warner and Turner Broadcasting System. Three weeks later the official announcement was reported. Every magazine covered the story only one issue after the unofficial

and official merger announcements. Therefore, the second week issue of September and the first week issue of October were included in the analysis.

The merger between AOL and Time Warner in the wake of 2000 was ranked as the biggest in history. Although all magazines analyzed in this study dealt with the AOL Time Warner merger with cover stories, they covered the merger just one or two issues.

All merger stories in two issues of six magazines were selected in every merger year. In case of Fortune, every single issue was selected because it is biweekly. In total, 33 issues were included in this study. Because visuals are not included on electronic databases, original copies of each magazine were content analyzed.

The unit of analysis was the paragraph of every article of the magazines. Each paragraph was judged on the emphasized company, emphasized frame, and valence on merger. Since an article usually contains more than one direction, it is effective to use a smaller segment such as a paragraph to lower the ambiguity in deciding the perspective on merger. Most paragraphs have fewer than 20 lines in a column on the average and have the same context in meaning within one paragraph.

All paragraphs in the selected articles were coded according to the following:

1) Magazine name (Time, Newsweek, U.S. News & World Report, Fortune, BusinessWeek, The Economist)
2) Magazine type (general, business)
3) Ownership (under Time Warner or not)
4) Merger year (1989, 1995, 2000)
5) The number of square inches (It was compared as a total area).

6) Emphasized company: It was divided into four categories (Time Warner, opposite company in the merger, both, other companies). If a paragraph focused on the Time Inc., or Time Warner in the merger, it was coded into Time Warner. If a paragraph emphasized Warner Communication in 1989, Turner Broadcasting System in 1995, or AOL in 2000, it was coded into the opposite company in the merger. If a paragraph included both companies, it was coded into 'both' category. If a paragraph told a story of other companies, it was coded into 'other companies' category.

7) Emphasized frame aspect: It was divided into seven categories (economic, social, technological, industrial, legal, personal, others). If a paragraph was about the stock market, financial data, business interests, economic influence, money, vertical integration, etc, it was coded into the economic category. If a paragraph dealt with social and cultural influence on people, democracy, journalism, etc, it was coded into the social category. If a paragraph was about technology such as analog, digital, or other technological terms, it was coded into the technological category. If a paragraph explained the industrial situation, joint venture, competition within industry, corporate management, future of industry, etc, it was coded into the industrial category. If a paragraph mentioned legal aspects, government regulation, rules, lawsuit, etc, it was coded into the legal category. If a paragraph described a person, for example, CEO of a merger related company, it was coded into the personal category. If a paragraph did not include the above content, it was coded into the 'others' category.

8) Valence on merger itself: It was divided into three categories (positive, neutral, negative). If a paragraph included aggressive, objectionable, abominable expression or meaning like monstrous merger, war, social conflict, economic instability, immoral, impractical, unlawful, dangerous journalistic independence, not fair, too ambitious, profit-seeking, suspicious, in

doubt, etc, it was coded into the negative category. If a paragraph included synergy effect, audience welfare increase, cooperation, economic stability, economic growth, progressive, successful, practical, harmonious, free from influence, fair, not concerned with journalistic independence, etc, it was coded into positive category. If a paragraph was neither positive nor negative, it was coded into neutral. If a paragraph lacked conflict, it was coded as neutral as well.

Visuals were coded separately. The visual aspects were analyzed based on the size, types, and the emphasized company.

Size was coded by following criteria and cover page was included.

1) Up to quarter page.
2) Bigger than quarter to smaller than half page.
3) Half page.
4) Bigger than half to smaller than three-quarters page.
5) Bigger than three-quarters to smaller than one page.
6) One page or bigger than one page.

Since enough cells for statistical significance were not provided, visual size was recoded as two categories; 'up to half page' and 'more than half page.'

Visual types were comprised of photos, graphics such as table, chart, other data comparison, and cartoons. Because of the small number cells, graphics and cartoons were combined to compare with photos.

Coding of emphasized company in visual aspects followed the same way of text analysis (Time Warner, opposite company in the merger, both, other companies).

To determine coder reliability, two persons coded 10 % of content. For purely quantitative and not interpretative categories such as magazine type, year, ownership, and size of stories and photos were not examined in the intercoder reliability test. Using Holsti's formula (1969), agreement was 97.0% for emphasized company in text, 93.3% for emphasized company in visual, 89.7% for emphasized frame, 94.1% for the valence on merger. The average agreement for the coding categories was 93.5%. Chi-squares were used to identify the significance of the results.

Results

Valence on merger

Magazines involved in mergers covered the mergers more positively than other magazines did. Fortune showed the most positive perspective on the three merger cases with 52.9% positive assertions out of 104 paragraphs. Only 9.6% of its content showed a negative attitude to the mergers. Following Fortune, Time showed an overall positive perspective on merger cases. Although the other four magazines showed more than 60% neutral attitudes on the mergers, they tended toward the negative side rather than a positive one. This difference was statistically significant (See Table 1; χ^2 =107.866, df=10, p<.001).

These results were replicated when the magazines were grouped by ownership structure. Time Warner ownership showed positive attitudes and non-Time Warner ownership category showed the exact opposite result (See Table 2; χ^2 =70.858, df=2, p<.001).

It should be noted, however, that the majority of the content in both Time Warner magazines and non-Time Warner magazines was neutral (53.7% and 66.7%).

Emphasized company-Text

Another useful comparison examined the ownership's influence on content dealing with the company emphasized by each magazine. Only Time and Fortune paid attention to their parent company. Of 151 paragraphs in Time, 25.2% were focused on Time Warner and 13.9% were the opposite companies. In Fortune, 23.1% were Time Warner and 18.3% were the opposite companies. On the other hand, the other four magazines focused on the opposite companies such as Warner Communication, Turner Broadcasting System, and AOL.

Another interesting finding is the portion devoted to the 'both' category. While Time Warner ownership magazines mentioned very often both companies involved in mergers (Time; 45.7%, Fortune; 51.0%), the other four magazines didn't do this much as Time and Fortune. In the case of Time Warner AOL merger, the other magazines focused on AOL as a buyer. However, Time and Fortune portrayed the two companies with same weight. (See Table 3; χ^2 =98.635, df=15, p<.001).

When the data are grouped by ownership structure, two magazines that are under Time Warner ownership emphasized their parent company more than the opposite companies (24.3% versus 15.7%). Whereas non-Time Warner ownership magazines emphasized the opposite company three times more often than Time (9.0% versus 25.0%) (See Table 4; χ^2 =51.611, df=3, p<.001).

Emphasized company-Visuals

The visuals such as photos, graphics, and cartoons, as well as, text showed similar trends. Time magazine showed a strong focus on Time's parent company. While 31.9% of the visuals in Time related with Time's parent company, only 17.2% dealt with non-Time Warner visuals.

Other magazines showed the opposite result (See Table 5; χ^2=33.848, df=15, p<.01). However, these results have statistical problems due to small cell numbers.

Although a Chi-Square test showed that visual focus based on ownership was not significantly different statistically (See Table 6; χ^2 =4.732, df=3, p=.193), considering the entire picture, the trends showed similar attitudes toward ownership's influence. Time Warner ownership magazines focused 25% on their parent company, 22.7% on the opposite company, and 38.6% on the 'both' companies, and 13.6% on other companies. On the other hand, non-Time Warner ownership magazines showed quite different results. They focused on the opposite company rather than Time's parent company, and 26.4% of the visuals were of other companies.

Amount of coverage based on ownership

The length of the stories was measured in terms of square inches. The total amount of space devoted by a particular magazine in all issues was added together. In terms of ownership, it was hard to find any significant difference statistically. However, it is clear that Time and Fortune increased the amount of coverage in 2000 compared to the initial merger year. Time increased as much as 1,152 sq. inches and Fortune did 1,392 sq. inches (See Graph 1). Because of the extraordinary amount of Newsweek's coverage in 2000, the mean score of the total amount increased greatly. However, Time and Fortune were ranked second and third respectively in total amount.

Since enough cells for statistical significance were not provided, visual content was recoded as two categories: 'up to half-page' and 'more than half-page.' Though it didn't show a statistical significance, Fortune (33.3%) and Time (27.6%) used a greater amount of 'more than half-page' size visuals than other magazines did (Newsweek; 23.8%, US News&World Report; 13.3%, BusinessWeek; 14.3%, The Economist; 11.1%). (See Table 7; χ^2 =4.457, df=5, p=.486)

Based on ownership category, while the two Time Inc. magazines used 'more than half-page' visuals 29.5% of the overall visual content, the other magazines used them just 17.6% (See Table 8, χ^2 =2.602, df=1, p=.107)

Amount of coverage based on magazine type

The results were somewhat surprising. While three general magazines devoted 6,105.43 sq. inches to coverage of the three mergers (Time; 1,992, Newsweek; 2,537.43, US News & World Report; 1,576), three business magazines devoted only 3,724 sq. inches (Fortune; 1,653, BusinessWeek; 1,512, Economist; 559) (See Graph 1).

The average number of pages except the advertising section of the three general newsmagazines was 54, and that of the three business magazines was 88. Even though business magazines had more pages per issue, they did not devote more space to merger news than other general newsmagazines did to the same news story.

Emphasized Frame

Time and Newsweek were very close in how they framed the merger. Paragraphs focused on the personal frame 35.1% in Time and 37.8% in Newsweek. Other frames showed similar results in the two magazines. Combined across the six magazines, the technological and legal frames were reported the least - 4.4% and 4.9% respectively (See Table 9; χ^2 =140.842, df=30, p<.001).

Based on the given seven categories of coverage, the frames varied by magazine type. For the three general newsmagazines, 31.7% of coverage used the personal frame, 25.3% the industrial frame, and 18.5% the economic frame. On the other hand, three business newsmagazines focused 35.8% of content on the economic frame, 35.1% on the industrial frame, and 14.2% on the personal frame (See Table 10; χ^2 =61.007, df=6, p<.001).

Visual types

The visual types were coded into photos, graphics, and cartoons. The graphics included tables, charts, and other kinds of data comparison. While most newsmagazines mainly used photos, business newsmagazines used more graphics than general newsmagazines did. However, due to expected problems (N's are smaller than 5 in many cells), it was not significant statistically. Therefore, graphics and cartoons were combined and then re-examined (See Table 11; χ^2 =27.250, df=5, p<.001).

Results based on magazine type showed apparent differences using visual type between general magazines and business magazines. While 78.2% of visuals in general newsmagazines were photos, photos only accounted for 53.3% of visuals in business newsmagazines (See Table 12; χ^2 =9.278, df=1, P< 01)

Discussion

The purpose of the present study was to examine how newsmagazines covered mergers involving Time Inc. The overall findings of this study suggest that Time and Fortune showed favoritism toward their parent company, both in terms of the valence on mergers and emphasized company in coverage. The amount of coverage and usage of bigger size visuals also support a positive inclination toward the parent company.

Although this study focused more on ownership's influence, the content difference based on magazine type also showed significant results. While general newsmagazines focused on the personal frame, business newsmagazines devoted more coverage to the economic and industrial frames. In addition, general newsmagazines primarily used photos, and business newsmagazines used more graphics analyzing the data on the mergers.

Ownership differences

Magazines involved in mergers covered the mergers more positively than other magazines did. While Time and Fortune, two magazines that are under Time Warner ownership, showed a positive attitude on their parent company's three merger cases, the other magazines tended toward a negative side.

In analysis of emphasized company, the results were consistent with those in the valence. While Time and Fortune paid attention to their parent company, the other non-Time Warner ownership magazines focused on the opposite companies in mergers.

Amount of coverage, visual focus and visual size also showed similar attitudes toward ownership influence.

The coverage of the merger by Time and Fortune would be the first test of how an enormous conglomerate would cover itself in its own pages (Kuczynski, 2000). Time and Fortune didn't cover their parent company's merger news at all in 1989. Instead they tried to make a justification through an editor's note about the journalistic independence from the parent company. It is very comparative to other magazines, coverage which worried about the journalistic fairness of Time and Fortune. Again, Time and Fortune began with an editor's note defending the ability of Time Inc. magazines to report fair news in 2000.

Most magazines usually focused on the buyer side in every merger. Although AOL was the buyer, Time devoted more than double its space to describe its parent company, Time Warner. While most magazines described AOL as a winner and emphasized AOL's chairman, Stephen Case, over Time Warner's chairman, Gerald Levin, only Time featured Levin along with Case on its cover page and dealt with both at the same weight in the stories.

Even though this study couldn't find a significant statistical difference in the analysis of the amount of coverage, Time and Fortune increased their coverage considerably compared to former mergers of their parent company. They are more likely to cover their parent company's merger more strategically than before to justify the independence of journalistic fairness and relieve audiences who are worrying the concentration of media ownership.

The tremendous increase of Newsweek's coverage on Time's parent company merger in 2000 may have been in reaction to competition. Newsweek showed a strong negative attitude by running a skeptical essay on both companies' stock price and AOL's sex-related Web sites. Because Newsweek is second to Time in circulation, it tried to cover the merger news more negatively to oppose the accelerating expansion of its rival magazine, Time.

Magazine type differences

In overall analysis of emphasized frame, most of the coverage was devoted to the personal, economic, and industrial frames. The technological and legal frames were reported in less than 5% of the stories.

Meanwhile the frame differences were obviously based on magazine type. While general newsmagazines focused on the personal story, business magazines more emphasized the economic and industrial frames.

This analytic attitude was also shown in the use of visuals. While business newsmagazines used more graphics to explain the data, general newsmagazines used mainly simple photos.

The amount of coverage was a somewhat surprising finding. Because the merger news is business news and the overall pages of business magazines are more than general

newsmagazines, it is expected that business magazines would devote more space to merger coverage. However, the results were opposite to the expectation.

In analysis of differences on magazine type, business newsmagazines focused on economic and industrial frames. On the other hand, general newsmagazines described more personal stories than economic analysis. Because business newsmagazines have a priority on the audience who are interested in economy, they likely target stories to their business interested audience.

In terms of the amount of coverage, however, business newsmagazines devoted less quantity than general newsmagazines. General newsmagazines devoted considerable space to describe the personal history and characteristics of people who are involved in the merger. General audiences may be more interested in the personal success story such as AOL CEO Steve Case, a former Pizza Hut salesman who has become the king of the media industry.

While general newsmagazines used mainly photos of the people involved in the mergers, business newsmagazines used more graphics to provide financial data and organizational structure. The finding suggest that business magazines are responsive to their own readers, who want to obtain more financial information to analyze the mergers.

Even though it is hard to conclude that ownership influenced content based on only magazines, this study supported the notion that media ownership influenced content through the content analysis of valence on merger and emphasized company both in text and visuals.

Therefore, future studies about media ownership's influence on magazine content can use the present findings as one of examples to test other influences. Future research also could look at the coverage of media conglomerates in other media such as broadcasting, cable news, and newspapers.

And the content difference on magazine type reflected the product differentiation pursuing different target audience. Different types of magazines focused on different frames and used different visual characteristic on the same merger event.

It could be an example of media pursuing their own target audience in this multi-media, multi-channel age. As the numerous media try to attract more advertisers by getting more readership and viewership, the content will be more differentiated for the target audience.

In this context, this study also provides a foundation for other research to find the influence by media competition to attract larger audiences.

Bibliography

Andsager, J. L., and Powers, A. (1999). Social or Economic Concerns: How News and Women's Magazines framed breast cancer in the 1990s. *Journalism and Mass Communication Quarterly, 76* (3), 531-550.

Bagdikian, B. H. (1997). *The Media Monopoly* (5th ed.). Boston, MA: Beacon Press.

Bailey, G., & Lichty, L. (1972). Rough Justice on a Saigon Street. *Journalism Quarterly, 49*, 221-239.

Baxter, W. X., Quarles, R., & Kosak, H. (1978). The effect of Photographs and Their Size on Reading and Recall of News Stories. A paper presented at the AEJMC annual convention, Seattle, WA, 1978.

Breed, W. (1955). Social Control in The Newsroom: A Functional Analysis. *Social Forces, 33*, 326-335.

Browning, N., Grierson, D., & Howard, H. (1984). Effects of Conglomerate takeover on a newspaper's coverage of the Knoxville World's Fair: A Case Study. *Newspaper Research Journal, 6*, 30-38.

Buckman, R. T. (1994). How Eight weekly Newsmagazines Covered Elections in Six Countries. *Journalism Quarterly, 70*(4). 780-792.

Ciabattari, J. (1989, September October). Jason McManus: The Man in the Hot Seat (interview). *Columbia Journalism Review*, 33-34.

Compaine, B. M. (Ed.). (1979). *Who owns the media? Concentration of ownership in the mass communication industry*. White Plains, NY: Knowledge Industry Publications.

Coulson, D. C. (1994). Impact of Ownership on Newspaper Quality. *Journalism Quarterly, 71*(2), 403-410.

Fradgley, K. E., & Niebauer, W. E. (1999). London's Quality Newspaper: Newspaper Ownership and Reporting Patterns. *Journalism & Mass Communication Quarterly, 72*(4), 902-912.

Gale Research Co. (1999). *Gale Directory of Publications*. Detroit: Gale research.

Gans, H. J. (1979). *Deciding What's News: A Study of CBS Evening News, NBC Nightly News, Newsweek and Time*. New York: Pantheon Books. 78-115.

Gerlach, P. (1987). Research about Magazines appearing in Journalism Quarterly. *Journalism Quarterly 64*(1). 178-182.

Gitlin, T. (1980). *The Whole World is Watching*. Berkeley: University of California Press. 249-282.

Holsti, O. R. (1969). *Content Analysis for the Social Science and Humanities*. Reading, MA: Addison-Wesley.

Iosifides, P. (1999). Diversity Versus Concentration in The Deregulated Mass Media Domain. *Journalism and Mass Communication Quarterly, 76*(1), 152-162.

Kuczynski, A. (January 24, 2000). Time and Fortune play catch up. *New York Times*. C p.11.

Lee, T., & Hwang, H. (1997). The Impact of Media ownership: How Time and Warner's Merger Influences Time's content. A paper presented at the AEJMC annual convention, Chicago, 1997.

Manday. (1999, September 10). *USATODAY*. 18A.

Martin, S. E. (1991). Using Expert Sources in Breaking Science Stories: A Comparison of Magazine Types. *Journalism Quarterly, 68*(1/2), 179-187.

McCombs, M. E. (1987). Effect of Monopoly in Cleveland on Diversity of Newspaper Content. *Journalism Quarterly, 64*. 740-744, 792.

McCombs, M. E. (Ed.). (1988). *Concentration, Monopoly, and Content. Press Concentration and Monopoly: New Perspectives on Newspaper Ownership and Operation*. Norwood, NJ: Ablex Publishing Corporation. 129-138.

McManus, J. H. (1994). *Market Driven Journalism*. Thousand Oaks, CA: Sage.

Mermigas, D. (January 17, 2000). Making Old Valuations New. *Electronic Media*, p 48.

Moriarty, S. E., & Popovich, M. N. (1991). Newsmagazine Visuals and the 1988 Presidential Election. *Journalism Quarterly, 68*(3). 371-380.

Rich, J. T. (1981). A Measure of Comprehensiveness in Newsmagazine Science Coverage. *Journalism Quarterly, 58*(2), 248-253.

Shoemaker, P. J., & Reese, S. D. (1996). *Mediating the Message: Theories of Influences on Mass Media Content*. (2nd ed.). White Plain, NY: Longman.

Simmons, B. K., & Lowry, D. N. (1990). Terrorists in the News, as Reflected in Three Newsmagazines, 1980-1988. *Journalism Quarterly, 67*(4), 692-696.

Swisher, G. K., & Reese, S. D. (1992). The smoking and Health Issue in Newspapers: Influence of Regional Economies, the Tobacco Institute and News Objectivity. *Journalism Quarterly, 69* (4), 987-1000.

Tuchman, G. (1972). Objectivity as Strategic Ritual: An Examination of Newsmen's Notions of Objectivity. *American Journal of Sociology, 77*, 660-679.

Waldman, P. & Devitt, J. (1998). Newspaper Photographs and the 1996 Presidential Election The Question of Bias. *Journalism and Mass Communication Quarterly, 75*(2). 302-311.

Wanta, W. (1986). The Effects of Dominant Photographs: An agenda Setting Experiment. *Journalism Quarterly, 63*, 728-734.

White, D. M. (1950). The Gatekeeper: A case Study in the Selection of News. *Journalism Quarterly, 27*, 383-390.

Table 1.

NAME * VALENCE CROSSTABULATION

			VALENCE			
NAME	TIME	COUNT(%)	NEGATIVE	NEUTRAL	POSITIVE	TOTAL
	NW		11(7.3%)	98(64.9%)	42(27.8%)	151(100%)
	US NEWS		27(22.7%)	86(72.3%)	6(5.0%)	119(100%)
	FORTUNE		21(19.3%)	65(59.6%)	23(21.1%)	109(100%)
	BW		10(9.6%)	39(37.5%)	55(52.9%)	104(100%)
	ECONO		28(22.2%)	80(63.5%)	18(14.3%)	126(100%)
			14(21.2%)	49(74.2%)	3(4.5%)	66(100%)
TOTAL			111(16.4%)	417(61.8%)	147(21.8%)	675(100%)

χ^2 =107.866, df=10, p<.001

Table 2.

OWNERSHIP * VALENCE CROSSTABULATION

			VALENCE			
OWNER-	TW	COUNT(%)	NEGATIVE	NEUTRAL	POSITIVE	TOTAL
SHIP	NON TW		21(8.2%)	137(53.7%)	97(38.0%)	255(100%)
TOTAL			90(21.4%)	280(66.7%)	50(11.9%)	420(100%)
			111(16.4%)	417(61.8%)	147(21.8%)	675(100%)

χ^2 =70.858, df=2, p<.001

Table 3.

NAME * FOCUS CROSSTABULATION (TEXT)

			FOCUS				
			TW	OPPOSITE	BOTH	OTHER	TOTAL
NAME	TIME	COUNT(%)	38(25.2%)	21(13.9%)	69(45.7%)	23(15.2%)	151(100%)
	NW		13(10.9%)	41(34.5%)	49(41.2%)	16(13.4%)	119(100%)
	US NEWS		9(8.3%)	36(33.0%)	39(35.8%)	25(22.9%)	109(100%)
	FORTUNE		24(23.1%)	19(18.3%)	53(51.0%)	8(7.7%)	104(100%)
	BW		9(7.1%)	19(15.1%)	53(42.1%)	45(35.7%)	126(100%)
	ECONO		7(10.6%)	9(13.6%)	21(31.8%)	29(43.9%)	66(100%)
TOTAL			100(14.8%)	145(21.5%)	284(42.1%)	146(21.6%)	675(100%)

χ^2 =98.675, df=15, p<.001

Table 4.

OWNERSHIP * FOCUS CROSSTABULATION (TEXT)

			FOCUS				
			TW	OPPOSITE	BOTH	OTHER	TOTAL
OWNER-	TW	COUNT(%)	62(24.3%)	40(15.7%)	122(47.8%)	31(12.2%)	255(100%)
SHIP	NON TW		38(9.0%)	105(25.0%)	162(38.6%)	115(27.4%)	420(100%)
TOTAL			100(14.8%)	145(21.5%)	284(42.1%)	146(21.6%)	675(100%)

χ^2 =51.611, df=3, p<.001

Table 5.

NAME * FOCUS CROSSTABULATION (VISUAL)

			FOCUS				
			TW	OPPOSITE	BOTH	OTHER	TOTAL
NAME	TIME	COUNT(%)	9(31.0%)	5(17.2%)	10(34.5%)	5(17.2%)	29(100%)
	NW		14(33.3%)	14(33.3%)	8(19.0%)	6(14.3%)	42(100%)
	US NEWS		4(13.3%)	10(33.3%)	7(23.3%)	9(30.0%)	30(100%)
	FORTUNE		2(13.3%)	5(33.3%)	7(46.7%)	1(6.7%)	15(100%)
	BW		1(4.8%)	2(9.5%)	7(33.3%)	11(52.4%)	21(100%)
	ECONO		0	3(33.3%)	5(55.6%)	1(11.1%)	9(100%)
TOTAL			30(20.5%)	39(26.7%)	44(30.1%)	33(22.6%)	146(100%)

χ^2 =33.848, df=15, p<.01

Table 6.

OWNERSHIP * FOCUS CROSSTABULATION (VISUAL)

			FOCUS				
			TW	OPPOSITE	BOTH	OTHER	TOTAL
OWNER-	TW	COUNT(%)	11(25.0%)	10(22.7%)	17(38.6%)	6(13.6%)	44(100%)
SHIP	NON TW		19(18.6%)	29(28.4%)	27(26.5%)	27(26.5%)	102(100%)
TOTAL			30(20.5%)	39(26.7%)	44(30.1%)	33(22.6%)	146(100%)

χ^2 =4.732, df=3, p=.193

Table 7.

NAME * SIZE CROSSTABULATION (VISUAL)

			SIZE		
			UPTO HALF	MORE HALF	TOTAL
NAME	TIME	COUNT(%)	21(72.4%)	8(27.6%)	29(100%)
	NW		32(76.2%)	10(23.8%)	42(100%)
	US NEWS		26(86.7%)	4(13.3%)	30(100%)
	FORTUNE		10(66.7%)	5(33.3%)	15(100%)
	BW		18(85.7%)	3(14.3%)	21(100%)
	ECONO		8(88.9%)	1(11.1%)	9(100%)
TOTAL			115(78.8%)	31(21.2%)	146(100%)

χ^2 =4.457, df=5, p=.486

Table 8.

OWNERSHIP * SIZE CROSSTABULATION (VISUAL)

			SIZE		
		COUNT(%)	UPTO HALF	MORE HALF	TOTAL
OWNER-	TW		31(70.5%)	13(29.5%)	44(100%)
SHIP	NON TW		84(82.4%)	18(17.6%)	102(100%)
TOTAL			115(78.8%)	31(21.2%)	146(100%)

χ^2 =2.602, df=1, p=.107

Table 9

NAME * FRAME CROSSTABULATION

			FRAME							
			ECONOMIC	SOCIAL	TECHNO	INDUSTRIAL	LEGAL	PERSONAL	OTHER	TOTAL
NAME	TIME	COUNT(%)	22(14.6%)	22(14.6%)	3(2.0%)	30(19.9%)	14(9.3%)	53(35.1%)	7(4.6%)	151(100%)
	NW		22(18.5%)	11(9.2%)	5(4.2%)	28(23.5%)	5(4.2%)	45(37.8%)	3(2.5%)	119(100%)
	US NEWS		26(23.9%)	10(9.2%)	7(6.4%)	38(34.9%)	6(5.5%)	22(20.2%)	0	109(100%)
	FORTUNE		39(37.5%)	12(11.5%)	2(1.9%)	28(26.9%)	1(1.0%)	19(18.3%)	3(2.9%)	104(100%)
	BW		44(34.9%)	0	2(1.6%)	59(46.8%)	4(3.2%)	13(10.3%)	4(3.2%)	126(100%)
	ECONO		23(34.8%)	1(1.5%)	11(16.7%)	17(25.8%)	3(4.5%)	10(15.2%)	1(1.5%)	66(100%)
TOTAL			176(26.1%)	56(8.3%)	30(4.4%)	200(29.6%)	33(4.9%)	162(24.0%)	18(2.7%)	675(100%)

χ^2 =140.842, df=30, p<.001

Table 10

MAGAZINE TYPE * FRAME CROSSTABULATION

			FRAME							
			ECONOMIC	SOCIAL	TECHNO	INDUSTRIAL	LEGAL	PERSONAL	OTHER	TOTAL
MAGAZINE TYPE	GENERAL	COUNT(%)	70(18.5%)	43(11.3%)	15(4.0%)	96(25.3%)	25(6.6%)	120(31.7%)	10(2.6%)	379(100%)
	BUSINESS		106(35.8%)	13(4.4%)	15(5.1%)	104(35.1%)	8(2.7%)	42(14.2%)	8(2.7%)	296(100%)
TOTAL			176(26.1%)	56(8.3%)	30(4.4%)	200(29.6%)	33(4.9%)	162(24.0%)	18(2.7%)	675(100%)

χ^2 =61.007, df=6, p<.001

105

104

Table 11.

NAME * VISUAL TYPE CROSSTABULATION

			VISUAL TYPE		
			PHOTOS	GRAPHICS	TOTAL
NAME	TIME	COUNT(%)	18(62.1%)	11(37.9%)	29(100%)
	NW		33(78.6%)	9(21.4%)	42(100%)
	US NEWS		28(93.3%)	2(6.7%)	30(100%)
	FORTUNE		8(53.3%)	7(46.7%)	15(100%)
	BW		15(71.4%)	6(28.6%)	21(100%)
	ECONO		1(11.1%)	8(88.9%)	9(100%)
TOTAL			103(70.5%)	43(29.5%)	146(100%)

χ^2 =27.250, df=5, p<.001

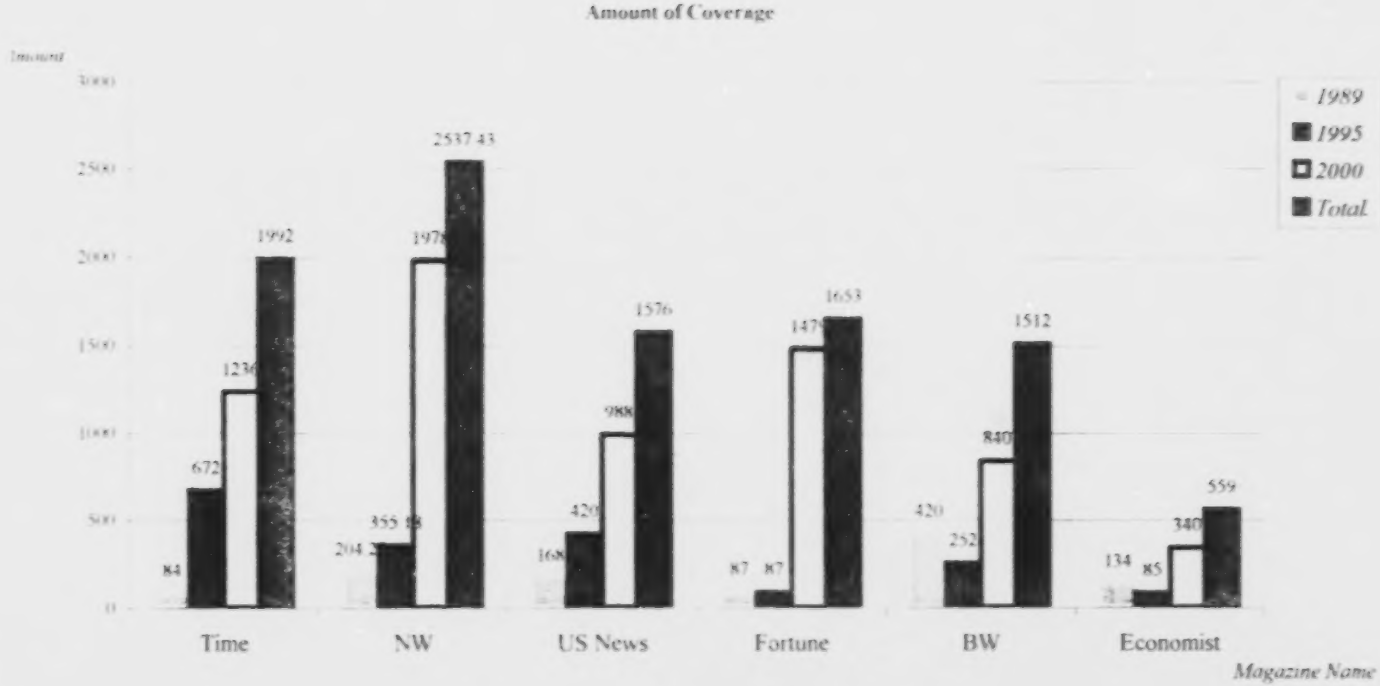
Table 12.

MAGAZINE TYPE * VISUAL TYPE CROSSTABULATION

			VISUAL TYPE		
			PHOTOS	GRAPHICS	TOTAL
MAGAINE	GENERAL	COUNT(%)	79(78.2%)	22(21.8%)	101(100%)
TYPE	BUSINESS		24(53.3%)	21(46.7%)	45(100%)
TOTAL			103(70.5%)	43(29.5%)	146(100%)

χ^2 =9.278, df=1, p<.01

Graph 1



BEST COPY AVAILABLE

RECEIVED
JUL 1 3 2000

AEJMC
Media Management and Economics Division

Running head: Digital Cable Adoption

Predicting Digital Cable Adoption:
Who will upgrade to digital cable, and how soon?

by

Myung-Hyun Kang
Doctoral Student
Mass Media Ph.D. Program
Michigan State University

Email: kangmyu1@msu.edu

Paper presented to the Media Management and Economics Division
at the annual convention of the AEJMC
Phoenix, August 2000

BEST COPY AVAILABLE

Abstract

Digital cable is a technological innovation in the area of cable telecommunications, featuring more channels, more convenience, and more interactivity. The present study investigates the factors that influence the adoption of digital cable in terms of demographics, media use, technology ownership, one's innovative attitudes, and satisfaction with cable company. Results of this study indicate that the earlier adoption of digital cable is more likely among those who watch television heavily, are satisfied with current cable service, and see themselves as well as their cable operator as technically progressive. The findings also suggest that individual' perceptual variables are more important than demographic variables in predicting digital cable subscribership.

Predicting Digital Cable Adoption:
Who will upgrad to digital cable, and how soon?

Since the late 1990s cable companies have been transitioning from an analog to an upgraded digital distribution system, namely "Digital Cable." AT&T Broadband & Internet Services (AT&T BIS, formerly TCI) is one of the pioneers. The cable company started the country's first full-fledged digital cable offering in October 1996, and it had more than 1.8 million digital cable subscribers nationwide by 1998 (Higgins, 2000). Other cable operators such as Cox, Comcast, Adelphia, Century, and MediaOne are also in various stages of digital deployment. Cox Communications, for example, began offering the service in October 1997. By 1998, the company had 65,000 customers, while Comcast which launched its service in July 1998, captured over 50,000 subscribers (Katz & Peers, 1998).

Given that the pace of the rollouts is significantly faster than was initially anticipated, the introduction of the new service to existing analog subscribers is recognized as a success. Based on the early success of digital cable, most cable operators seem to be optimistic about the future for the service. AT&T BIS estimates that roughly 80% of its existing analog subscribers will buy digital cable within the next five years (Katz & Peers, 1998).

The reason for the early rollout success may be attributed to advanced functional features of digital cable. For about ten dollars a month over the cost of an analog cable package, an analog subscriber can upgrade to digital cable featuring more choice and more interactivity when compared to current analog service. Specifically, this new service may include specialized channels (e.g., Discovery Kids, Discovery Science, and

ESPNews), additional CD-quality music channels, an interactive program guide, and a multiplexed premium movie service, all of which are addressed in turn.

Based upon the upgraded functional attributes, digital cable is expected to change subscribers' viewing patterns. According to recent research conducted by Cox Communications, new digital subscribers watched about 10% more television and rented fewer videos than before (Katz & Peers, 1998). Another recent study by CTAM (Cable Television Administrative & Marketing Society) also discovered that subscribers' TV viewing behavior was significantly affected by digital cable (Higgins, 1999). The study which polled about 1,500 digital cable customers from systems across the country to assess their satisfaction with the new service, showed that 69% of the respondents watched more channels, 47% watched more premium television and 45% rented fewer videotapes.

Although digital cable is still in its infancy,[1] given the potential importance of the service to subscribers as well as to the cable industry, it is surprising that little research has been undertaken so far regarding the introduction of the evolutionary service. In particular, even if an understanding of early subscribers might be necessary in the initial stage in terms of expediting diffusion of the new type service, unanswered still are many essential questions. Who subscribes to digital cable in this initial stage of its diffusion? Who are potential adopters? And how soon? What factors motivate them to upgrade to digital cable? The goal of this study is to investigate the factors which account for digital cable adoption. The specific areas investigated by the current study are:

1) Who are early digital cable adopters? Who are potential adopters of digital cable?

2) What factor is the most influential on digital cable adoption?

Digital cable as a technological innovation

Digital cable is a new technological innovation in the area of cable telecommunications, which offers users advanced benefits including *more choice*, *more convenience*, and *more interactivity*. Using digital compression technology that compresses the space used by one analog channel,[2] digital cable is able to provide extended channel space, which allows users to enjoy the following benefits.

First, digital cable delivers more entertainment channels not available in existing analog services. More specifically, the new service offers more niche-programming channels to satisfy specific viewers' interest. For instance, AT&T BIS provides up to 24 additional video channels featuring *Discovery Kids*, *ESPNews*, and *BBC America* (Higgins, 1997).

Second, digital cable offers more convenience in terms of accessing premium channels at convenient start times. In other words, since most tiers of digital cable have been loaded with *multiplex(es)* of premium channels such as HBO2, HBO3, Showtime2, and Starz!2, subscribers can easily access hit movies with 30 minute start times whenever they desire (Colman, 1997). For example, if an existing HBO subscribers upgrades to the digital service, (s)he can receive additional multiplex HBO channels (i.e., HBO1, HBo2, HBO3, etc.). Furthermore, at any given time there is a choice of several movie titles. This is expected to reduce pay channel churn.

Third, Pay-Per-View (PPV) service on digital cable also offers subscribers the opportunity to access it at their desired start time. With frequent movie start times of PPV, viewers are able to watch the movie on their schedule. Because of its capability to provide the switched video-streams, digital cable is referred as "near video-on-demand"

(See Brown, 1998; Haring, 1997). In addition, unlike the existing analog system that needs to be called in by telephone for ordering PPV movies, in digital cable the PPV movies is ordered directly and easily by the push of a button of remote control. The advanced ordering system may enable the demand of PPV to increase in digital cable (Petrozzello, 1998).

Finally, the most salient characteristic of digital cable may be interactive program guide - it consists of an interactive on-line guide and universal remote control. The interactive on-screen guide may help users control over personalized viewing scheduling in advance. For instance, users can search for program listings by using the interactive guide's time, channel, and category menu. Users can also set the guide system in order to be reminded of when their favorite programs begin, from 5 to 15 minutes before the programs start.

Diffusion Theory

Robertson (1971) classified innovation categories into: (1) continuous, (2) dynamically continuous, and (3) discontinuous innovations. A continuous innovation involves the introduction of a modified product, and hence requires *little disruption* in consumer's behavioral patterns. Compared to continuous innovation, a dynamically continuous innovation requires *some disruption* in behavioral patterns, but does not alter them substantially. A discontinuous innovation is a new product that requires a dedicated user skill. It may be required to alter consumption patterns *dramatically* or to establish new behavioral patterns. Applying Robertson's framework on the television medium, Krugman (1985) developed a theoretical model conceptualizing a hierarchy of cable

television. He positioned basic cable service on continuous, pay cable on dynamically continuous, and interactive service (e.g., VCRs) on discontinuous consumption media, on the basis of potential influences on viewing behaviors of subscribers. According to him, since pay cable has special programs, movies, and attractions, it may require different viewing rules compared to basic cable, and hence it should fall into the dynamically continuous category. Although the classification was somewhat arbitrary, as he argued, "there is enough evidence to acknowledge that variation [of viewing patterns] does indeed exist" (p. 24).

On the other hand, in the model, Krugman considered the two way *interactivity* to be the most fundamental criterion in distinguishing between dynamically continuous and discontinuous media. He exemplified VCRs or computer games as one of discontinuous innovative media because the medium has some interactive functions. Although digital cable did not exist when the model was made, it could be argued that it falls into *the discontinuous innovation* category. Table 1 represents a new model adapted from Krugman's model, which considers the presence of digital cable.

Table 1. Cable medium's hierarchical framework

Type of Innovation	Cable medium	Features
Continuous	Basic cable	Better reception/ Program variety
Dynamically continuous	Pay cable	Special movies
Discontinuous	Digital cable	Interactivity/Multiplexed movie channels

Diffusion theory that addresses the relationship between the characteristics of new products or services and their adopters (Williams, Strover & Grant, 1994) may offer a theoretical backbone in explaining the early adoption of digital cable as an innovation.

Rogers (1995) defined "innovativeness" as "the degree to which an individual or other unit of adoption is relatively earlier in adopting an innovation than other members of a system" (p. 22). On the basis of its level of innovativeness he classified adopters into five categories: innovators (2.5%), early adopters (13.5%), early majority (34%), late majority (34%), and laggards (16%). According to Rogers, both innovators and early adopters of a new technology differ from others in terms of socioeconomic status, personality and communication behaviors. Specifically, they tend to be younger, upscale, better educated, and use mass media channels more heavily than later adopters or nonadopters (Rogers, 1995).

Hypotheses

Demographics

Consistent with diffusion theory's proposition, a large body of research literature on demographics associated with cable adoption suggests that subscribers are younger, upscale, and have more children (e.g., Baldwin & Mcvoy, 1988; Ducey, Krugman & Eckrich, 1983; Greenberg, Heeter, D'Alessio & Sipes, 1988; Krugman, 1985; Krugman & Eckrich, 1982; LaRose & Atkin, 1988a; Reagan, Ducey & Bernstein, 1985; Rothe, Harvey & Michael, 1983; Webster, 1983). From this, the following hypothesis is proposed.

Hypothesis 1a: Age will be negatively related to the level of innovativeness in adopting digital cable. The younger the people are, the sooner they will adopt the digital cable.

Hypothesis 1b: Level of income will be positively related to the level of innovativeness in adopting digital cable.

Hypothesis 1c: Level of education will be positively related to the level of innovativeness in adopting digital cable.

Hypothesis 1d: Number of children at home will be positively related to the level of innovativeness in adopting digital cable.

Media use

Media usage variables have also been included in several studies associated with cable subscribership. In general, the variables might include a variety of media use behaviors such as television (LaRose & Atkin, 1988a; Greenberg et al., 1988; Sparks & Kang, 1986; Webster, 1983), radio (Reagan et al., 1985), newspaper (LaRose and Atkin, 1988a), and moviegoing (Collins et al., 1983; Reagan et al., 1985).

Diffusion theory also postulates that early adopters will heavily use a variety of mass media compared to later adopters (Rogers, 1995). Accordingly, it is hypothesized that:

Hypothesis 2: The amount of television viewing, radio listening, newspaper reading, and movie-going will be positively related to the level of innovativeness in adopting digital cable.

Ownership of premium cable and home technical devices

Some scholars (e.g., Atkin & LaRose, 1994; LaRose & Atkin, 1992) report that prior experience or the heavy usage of other innovations that are functionally similar, is an important predictor of the adoption of an innovation. Taylor (1977) noted that, with regard to likelihood of an adoption, "new product development clearly should be

conducted among heavy users of the product class" (p. 106). In that regard, it is not hard to assume that persons who have already used some premium channels and PPV movies are more likely to buy the new video service, digital cable, than others because they are relatively heavy users of the cable medium.

Additionally, since they are considered to be more familiar with other video media, their decision to adopt a new, but similar video media will be easier and more likely. It might be reasonable to expect that the premium subscribers with relatively heavier cable usage as well as higher loyalty toward cable television would be among the early subscribers of another new cable service.

Cable operators seem to know how important the customers who already buy premium services are, to lead to rapid market penetration and high profits. Most cable operators are currently marketing their digital service primarily to premium subscribers (Katz & Peers, 1998). Comcast, for instance, isn't taking any aggressive marketing approaches for basic subscribers, relying entirely on premium and multiplexed movie channels (McAdams, 1999).

Given the theoretical expectations and cable companies' marketing strategies, it is expected that:

Hypothesis 3a: Subscribership of premium channels will be positively related to the level of innovativeness in adopting digital cable.

Earlier adopters also are more likely to have used other technical products. A number of studies have shown that early adopters of VCRs (Scherer, 1989), and subscribers of cable television (Rothe, Harvey, & Michael, 1983) are more likely to own related technical home devices than others. With regard to cable subscription, Rothe et

al.(1983) found that 8.4% of early cable subscribers owned home computers, 21% possessed VCRs and 30.4% had videogames, compared to 1.9%, 10.6%, and 18.1% in non-subscribers, respectively. Greenberg et al. (1988) made an index which summed up ownership of videogames, PCs, videodisc players, and VCRs. According to their study, pay cable subscribers had the highest score in the index, followed by basic subscribers and trailed by non-subscribers. LaRose and Atkin (1988a) concluded that VCR ownership would be an influential factor in predicting cable subscription, noting a significant difference between cabled homes and others in terms of VCR ownership.

Thus, it is hypothesized that:

Hypothesis 3b: The amount of home technology ownership will be positively related to the level of innovativeness in adopting digital cable.

Innovative attitudes

Diffusion theory suggests that adoption of technological innovations is a function of one's willingness to try new products (Rogers, 1995), a proposition supported by a series of studies. For instance, studies on computer adoption found early adopters of personal computers to be more venturesome, an eagerness to be among the first to buy and use new products (Danko & MacLachlan, 1983; Dickerson & Gentry, 1983). More recently, Lin (1998) found that computer adopter groups expressed the highest degree of need for innovativeness (e.g., willingness to learn new ideas, willingness to explore new technology, keeping up with new technology, and willingness to take risks) than likely adopters and nonadopters. Turning to cable, such results hold for cable subscribership. According to Greenberg et al.'s study (1988), pay-cable subscribers revealed the highest innovative attitudes, meaning that they were more receptive to new ideas compared to

basic-cable and non-cable groups. Summarizing the differences by subscriber status, Krugman (1985) characterized cable subscribers as those who "exhibit a great willingness to use new technologies" and are "more technically oriented"(p. 22), whereas nonsubscribers tend to be less venturesome.

The perceived image to a cable operator may be related to the adoption of the digital cable. It would be reasonable to assume if the service that a cable operator is now selling is of high technologies, its adoption rate might be affected by the company's high-tech image. For instance, the result of a consumer survey suggested that early deployment of a technical innovator like cable modem could be influenced by the cable operator's image (Petrozzello, 1997). The next block of hypotheses deals with digital cable subscribers' innovative attitudes toward technology and toward their cable company.

Hypothesis 4a: Level of innovative attitudes toward technology will be positively related to the level of innovativeness in adopting digital cable.

Hypothesis 4b: Level of innovative attitudes toward cable company will be positively related to the level of innovativeness in adopting digital cable.

Satisfaction with the current cable service

In regard to cable subscription, there has been relatively little concern for one's satisfaction with cable television service. However, certain studies have implied that once an individual subscribes to a cable service, his or her satisfaction with the current service might be more directly related with maintaining the subscription or upgrading/downgrading behaviors than demographics and media behaviors. (Jacobs, 1995; LaRose & Atkin, 1988b). Such an explanation may come from consideration of the confirmation/disconfirmation concept used widely in the area of market research. The

concept states that an individual's expectations are disconfirmed when a product or service performs poorly than expected, which results in the user's dissatisfaction. Thus (s)he is unlikely to repurchase. However, if expectations are fulfilled, the user may be satisfied with the product or the service, and further repurchases will be likely (Engel, Blackwell & Miniard, 1986).

In the context of the television medium, viewer satisfaction with broadcast television (i.e., purchase) would be a predictor for cable television subscription(i.e., repurchase). Sparkes (1983) noted that cable subscriber's satisfaction with broadcast television was higher than that of nonsubscribers, although the difference in satisfaction between the two groups disappeared over time. LaRose and Atkin (1988a) reported that satisfaction with broadcast television had a highly significant relationship to cable subscription. Moreover, the same researchers also found that intention to discontinue cable was related to less satisfaction with the current cable service (LaRose & Atkin, 1988b). For the same reason, one can assume that even those subscribing to basic service may disconnect the service or upgrade to pay services due to the degree of their satisfaction with the subscription. As Jacobs (1995) noted, the satisfaction of subscribers is certainly "more directly linked with disconnect or subscription upgrading/downgrading behaviors" (p. 271). Since the subscription of digital service is an upgrading behavior to analog subscribers, the following hypothesis is addressed:

Hypothesis 5: Level of satisfaction with cable company will be positively related to the level of innovativeness in adopting digital cable.

In summary, this study attempts to explore relevant variables (i.e., demographics, media use, home/technology ownership, innovative attitudes, and satisfaction with cable television) to predict *how soon* an individual adopts the digital cable (i.e., innovativeness in digital cable adoption). Further, the current study attempted to assess the *relative influence* of the independent variables in predicting how soon individuals' adopt the cable innovation – digital cable.

Research Methods

Sampling

A telephone survey was conducted in East Lansing - Meridian Township, Michigan, where digital cable service has been available by AT&T BIS since early 1998. The two lists of telephone numbers for digital subscribers and analog subscribers were obtained from the operator. A systematic random sample of telephone numbers was then drawn within the group lists.

The survey was conducted between June 8 and June 17, 1999, and in the survey adult household members (at least 18 years of age) were interviewed by undergraduate students enrolled in a research methods class. They were trained with two training sessions for this telephone survey. To minimize the nonresponse error, at least five callbacks were made by contacting busy, no answer, and machine answered numbers.

Out of 705 numbers tried, there were 109 ineligible numbers (business, non-working number, disconnects etc.), 110 unreachable numbers (no answer/busy/answering machine) after at least five trials, 153 refusals, and 333 completed interviews. Eliminating the ineligible numbers, the completion rate was 56%.

Operational measure

The survey instrument included questionnaire items that operationalized the following variables.

The dependent variable. The dependent variable of the current study is an "innovativeness" in adopting digital cable. As already discussed, innovativeness is conceptually defined as the degree to which an individual is relatively earlier in adopting an innovation than others (Rogers, 1995). The dependent variable was operationalized by asking how soon respondents adopted the digital cable. Responses ranged from "1" (non-digital subscription: 46% of the present study's sample), "2" (less than 1 year subscription: 40.2% of the sample), "3" (1 year – less than 18 months: 12% of the sample), and "4" (over 18 months: 1.8% of the sample), reflecting respondent's innovativeness in the digital cable adoption.

The independent variables. Five sets of independent variables were self-reported by each respondent: demographics, media use, technology ownership, innovative attitudes, and satisfaction with the current cable service.

Demographics: In order to acquire the demographic variables, this study asked the respondents about several variables such as age, income, the level of education, and the number of children. Ratio scales were used for age (years) and for number of children age 18 or under, whereas ordinal scales were used for income and education. Specifically, income was coded 1 for less than $ 10,000 through 6 to represent $120,000 or more. Education was categorized 1 for no high school education through 6 to indicate a post-college graduate education.

Media use: In order to measure media use, respondents were asked about television use (hours watched on the previous day), radio use (hours listened to on the previous day), newspaper use (days read during the previous week), movie use (numbers seen in a theater in the last 3 months).

Technology ownership: The ownership of premium channels was dummy-coded (0 = do not; 1 = have the channels). For measuring technology ownership, respondents were asked whether they owned any of a list of five electronic devices: a video camera, a VCR, a video game system, a compact disc player, and a personal computer. Each ownership was dummy-coded (0 = none; 1 = own). The total number of ownership was then summed to reflect the extent of one's technology ownership.

Innovative attitudes: Innovative attitudes for respondents themselves and toward their cable TV company were rated by the respondents on a 10-point scale where 1 meant "not technically progressive at all," or low tech, and 10 meant "very technically progressive," or high tech.

Satisfaction with the current cable service: For a measure of satisfaction with the current cable television, respondents were asked how satisfied they were with each of the services (i.e., customer service, quality of programs, and variety of programs) on a four-point satisfaction scale (1 = very satisfied, 2 = satisfied, 3 = dissatisfied, 4 = very dissatisfied). The satisfaction scores were then summed after recoding the values in reverse.

Data Analysis

First, Pearson's correlation coefficients were calculated to test hypotheses. Also, a multiple regression analysis was performed to assess the relative influence of

independent variables in predicting one's innovativeness in the digital cable adoption. Before conducting the regression analysis, Pearson's correlation coefficients were computed for all independent variables in order to check potential multi-collinearity problems. The correlation matrix indicated that multi-collinearity is not a concern (the highest coefficient was .41).

Results

Descriptive results

The sample demographic indicators show that the mean age of the sample was 39.3, the median household income category was "$30,000 - $60,000", and females comprised 52.3% of the sample. When compared with the most recent United States Census date (1996) in which the median age was 34, the median household income was $32,264 (1994), and female was 51.2%, the composition of the sample was not significantly different from that of the national population, except in education. This sample was relatively better educated than the U.S. as a whole, because 80.9% of this sample had at least some college education whereas only 47.7% had at least some college education in the national population.

Hypotheses test

The results of Pearson's correlation and multiple regression analysis are summarized in Table 2.

Table 2. Regression and Correlation Analysis for innovativeness in digital cable adoption

Independent Variables	Standardized Beta	Simple r
Age	-.01	-.08
Income	.08	.02
Education	-.05	-.06
# of Children	-.11	-.08
TV use	.25**	.26**
Radio listening	.04	.01
Newspaper	-.02	.00
Moviegoing	.11	.14*
Premium ownership	.17*	.27**
Media ownership	.11	.11*
Attitude toward self	.07	.20**
Attitude toward company	.29**	.34**
Satisfaction	.03	.23**

Notes:
- * : <.05, **: <.001
- R-Square = .27, df = (13, 252), F= 7.271, p <.001

Contrary to expectations, no significant relationships were found between the demographic variables and the innovativeness in adopting digital cable. Thus, all hypotheses 1a (age), 1b (income), 1c (education), and 1d (number of children) were not supported.

With respect to media use, a significant relationship between the use of television and innovativeness of digital adoption was found (r=.26, p<.001). The more respondents watched television, the sooner they tended to subscribe to digital cable. A positive relationship was also found between the frequency of moviegoing and the digital

adoption innovativeness (r=.14, p<. 05), suggesting that the more often one goes to a theater to watch movies, the sooner one will subscribe to digital cable. However, radio listening and newspaper reading appeared to have no significant relationship with digital cable adoption. Accordingly, hypothesis 2 was partly supported.

Findings related to premium channel ownership indicated those who subscribe to premium channels would be relatively earlier in adopting digital cable service (r=.27, P <. 001), which supports hypothesis 3a. Hypothesis 3b was also supported (r=.11, p<.05), providing evidence that the more technical devices people owned, the sooner they would subscribe to digital cable.

With regard to innovative attitudes, significant relationships were found between digital adoption and people's innovative attitudes toward themselves (r=.20, p<.001) and toward their cable company (r=.34, P<.001). The more people evaluate both themselves and their cable company as technically progressive, the sooner they will become a digital cable subscriber. Thus, hypotheses 4a and 4b were supported.

Finally, hypothesis 5 was also supported (r=. 23, P <. 001), indicating that those who are satisfied with their current service of cable television will upgrade to digital cable relatively sooner.

Results of the multiple regression analysis

The research question of this study examined the relative importance of individual variables in predicting the innovativeness in adopting digital cable. As seen in Table 2, attitude toward cable company (beta=.29), television use (beta=.25), and ownership of premium channels (beta=.17) were the three significant predictors. However,

demographic variables did not contribute to the variance explained. Altogether, a total of 27% of variance was explained by predictive variables entered in the regression equation.

Discussion

The results of this study suggest that the earlier adoption of digital cable is more likely among those who are watching television heavily, subscribe to premium channels, are satisfied with current cable service, and rate themselves as well as their cable operator as technologically progressive. With respect to demographic variables, this study did not uncover any significant relationships between the innovativeness of digital adoption and demographics in terms of age, income, education level, and number of children. In particular, given that income has been considered as one of the most significant factors in the early stage of diffusion of innovations, the finding that income was not related to digital cable subscription is unusual. Perhaps because the initial cost to upgrade to digital cable is at most around $50 ($40 of installation fee plus $10 of monthly fee), income does not seem to be relevant in this study. Also, other characteristics, such as interest in television as indicated by hours viewing or subscription to premium services, might dominate cost relative to income level as a factor.

As for the consumption of other media, this study confirms past findings that cable subscription was related to the amount of television viewing (Greenberg et. al., 1988; LaRose & Atkin, 1988a; Reagan, 1987). Obviously, the early digital cable adoption appears to be related to the amount of TV viewing.

The results associated with other media uses were interesting. Consistent with cable companies' expectations, in this study higher likelihood of early digital cable

subscription was found among those who subscribe to premium channels. This implies that the cable companies' strategy targeting premium subscribers is desirable in the early stages of digital cable deployment. Perhaps, since benefits for the premium group using digital cable are larger (e.g., multiplex movie channels), early adoption can be expected.

The most interesting result emerged from respondents' self-reported attitude toward technology as well as toward their cable company. Particularly, since the question about the innovativeness of the cable company does not come up in earlier studies, the finding regarding the strong relationship between digital cable adoption and people's perception about their cable company, is worthwhile. This suggests that cable companies need to build a high-tech image at the time when a new service starts to deploy.

In this study, once again, the importance of a good relationship between subscribers and cable company appeared. The study clearly indicated that as existing subscribers are more satisfied with existing cable service, they are earlier subscribers to the upgraded service offered by the same cable operator instead of staying put or downgrading, a finding which is consistent with past findings (Jacobs, 1995; LaRose & Atkin, 1988b). As Jacobs (1995) already noted, it seems to be obvious that current subscriber's satisfaction is related to upgrading subscription.

The findings of this study offer theoretical insights for academic researchers and practical implications for cable operators.

First, in terms of theoretical contributions, this study supported a less important role of demographic variables on the explanation of the adoption of technologies. Jeffres and Atkin (1996) found "a diminished role for demographics" (p. 328) in a study predicting use of new technologies, suggesting that "a new set of attitudinal variables to

supplement demographics ... be considered" (p. 328). Consistent with the finding, results of this study revealed that demographic variables were less important predictors of digital cable subscribership than were individual's attitudinal variables or use of television.

Second, for marketing digital cable service in a competitive environment, these findings allow system operators to understand targeting groups and indicate what marketing strategy is the most effective in selling the service. In summary, cable companies may now need to focus on those who are innovative toward technology, use television more, and subscribe to premium channels.

Despite of these contributions, this study is not without limitation. As already noted, since the sample used in the study was limited to a single market, the composition of the sample was slightly different from the U.S. population, which may hurt the generalizability of the results. This study was also confined to the limited number of predictive variables, which account for 27% of the total variance in explaining the digital cable adoption. Future research needs to consider including more potential predictors such as individuals' lifestyle or psychographic variables for better explaining the adoption of digital cable. Additionally, regarding the anticipated impacts of digital cable on users' behaviors, future study is encouraged to see how the new cable service influences consumption patterns of other media or existing viewing habits.

References

Atkin, D., LaRose, R. (1994). Profiling call-in poll users. Journal of Broadcasting & Electronic Media, 38(2), 217-227.

Baldwin, T. F. & McVoy, D. S. (1988). Cable Communication. NJ: Prentice-Hall, Inc. B

Brown, P. J. (1998, January 8). TVN's targeted digital approach. Broadcasting & Cable, pp. 42-44.

Collins, J., Reagan, J. & Abel, J.D. (1983). Predicting cable subscribership: Local factor. Journal of Broadcasting, 27(2), 177-183.

Collman, P. (1997, November 3). Cox launches digital. Broadcasting & Cable, p. 55.

Danco, W.D., & MacLachlan, J.M. (1983). Research to accelerate the diffusion of a new invention: The case of personal computers. Journal of Advertising Research, 23(3), 39-43.

Dickerson, M.D., & Gentry, J.W. (1983). Characteristics of adopters and non-adopters of home computers. Journal of Consumer Research, 10, 225-234.

Ducey, R. V., Krugman, D. M. & Eckrich, D. (1983). Predicting market segments in the cable industry: The basic and pay subscribers. Journal of Broadcasting, 27(2), 155-161.

Engel, J. F., Blackwell, R. D., & Miniard, P. W. (1986). Consumer Behavior, (5th ed.) Chicago: Dryden Press.

Greenberg, B.S., Heeter, C., D'Alessio D., & Sipes, S. (1988). Cable and noncable viewing style comparisons, pp. 207-225 in C. Heeter and B.S.Greenberg(eds.) Cableviewing, HJ: Ablex publishing company.

Haring, B. (1997, November 17). Why cable firms love digital TV. USA Today, sec. 7, p. 1.

Higgins, J. M. (2000, January 31). AT&T cable cash flow off 23%. Broadcasting & Cable, p. 13.

Higgins, J. M. (1999, January 25). Consumers look at satellite service. Broadcasting & Cable, p. 111.

Higgins, J. M. (1997, December 1). Cable nets do digital. Broadcasting & Cable, p. 6.

Jacobs, R. (1995). Exploring the determinants of cable television subscribers satisfaction. Journal of Broadcasting & Electronic Media, 39, 262-274.

Jeffres, L. & Atkin, D. (1996). Predicting use of technologies for communications and consumer needs. Journal of Broadcasting & Electronic Media, 40(3), 318-330.

Katz, R. & Peers, M. (1998, November 30). Digital cable plexs muscle. Variety, pp. 19-22.

Krugman, D. (1985). Evaluating the audiences of the new media. Journal of Advertising, 14(4), 21-27.

Krugman, D. & Ecrich, D.(1982). Differences in cable and pay cable audiences. Journal of Advertising Research, 22(4), 23-29.

LaRose, R., & Atkin, D. (1992). Audiotext and the reinvention of the telephone as a mass medium. Journalism Quarterly, 69, 413-421.

LaRose, R., & Atkin, D. (1988a). Understanding cable subscribership as telecommunications behavior. Telematics and Informatics, 5(4), 377-388.

LaRose, R., & Atkin, D. (1988b). Satisfaction, demographic, and media environment predictors of cable subscription. Journal of Broadcasting & Electronic Media, 32(4), 403-413.

Lin., C.A. (1998). Exploring personal computer adoption dynamics. Journal of Broadcasting & Electronic Media, 42(1), 95-112.

McAdams, D. (1999, August 23). Dancing into digital. Broadcasting & Cable, pp. 28-32.

Petrozzllo, D. (1998, May 11). Choice is key to winning consumers to digital. Broadcasting & Cable, p. 62.

Petrozzllo, D. (1997, December 15). Image boost, choices key to 'cablenet'. Broadcasting & Cable, p. 105.

Reagan, J., Ducey, R.V. & Bernstein, J. (1985). Local predictors of basic and pay cable subscribership. Journalism Quarterly, 62, 397-400.

Reagan, J. (1987). Classifying adopters and nonadopters of four technologies using political activity, media use and demographic variables. Telematics and Informatics, 4(1), 3-16.

Robertson, J. S. (1971). Innovative Behavior and Communication NY: Holt, Rinehart & Winston, Inc.

Rogers, E.M. (1995). Diffusion of Innovations(4th ed.). NY: Free Press.

Rothe, J.T., Harvey, M.G. & Michael, G. C. (1983). The impact of cable television on subscriber and nonsubscriber behavior. Journal of Advertising Research. 23(4), 15-23.

Scherer, C.W. (1989). The videocassette recorder and information inequity. Journal of Communication, 39(3), 94-103.

Sparkes, V. M. (1983). Public perception of and reaction to multichannel television service. Journal of Broadcasting, 27(2), 163-175.

Sparkes, V. M. & Kang, N. (1986). Public reactions to cable television: Time in the diffusion process. Journal of Broadcasting, 30(2), 213-229.

Taylor, J. (1977). A striking characteristic of innovators. Journal of Marketing Research, 14, 104-107.

Webster, J. G. (1983). The impact of cable and pay cable television on local station audiences. Journal of Broadcasting, 27(2), 119-126.

Williams, F., Strover, S., & Grant, A. U. (1994). Social aspects of new media technologies, pp. 463-482 in J. Brant and D. Zillmann(Eds.) Media Effects Advances in Theory and Research, NJ: Hillsdale.

---

[1] Although the current penetration rate varies depending on each market and system, the average penetration rate of digital cable was about 10% as of 1998. For example, Cox reported its penetration rate of 5%-12%, depending on market. (Katz & Peer, 1998, p. 22).

[2] In general, by compressing an analog channel, digital cable can make 12 additional programming channels. For example, if three analog channels are compressed, up to 36 digitally transmitted channels are available.

Looking for the Right Partners in the Information Era: A Longitudinal Study of Acquisition Strategies by the Communications Industries

Presented to the Media Management and Economics Division, AEJMC

March, 2000

By

Jack C. C. Li

Doctoral student of mass communications program
University of Florida
Gainesville, FL 32611

Address:
309, SW 16th Ave. #147
Gainesville, FL 32601

Phone: 352-377-3687
E-mail: jacklee@yahoo.com

Abstract

The present paper uses the new industrial classification system (NAICS) to examine the acquisition patterns of the communications industries (TV, radio, cable, and telephony) from 1980 through 1999. Attention is focused on diversification strategies of entering the information industry. It is found that the 1996 Telecommunications Act has significant impact on the M&A patterns. The industries' diversification strategies are also found to be influenced by the characteristics and historical background of the existing industries.

BEST COPY AVAILABLE

Looking for the Right Partners in the Information Era: A Longitudinal Study of Acquisition Strategies by the Communications Industries

A quick review of the development in the media and telecommunications markets in recent years reveals the dazzling speed of movement toward consolidation. Within just a two-week period from July 24 to August 7, 1995, merger activities in the broadcasting industry reached a record $25.4 billion, from which two cases have attracted most attention. Walt Disney Co. acquired Capital Cities/ABC and its 10 TV stations, 21 radio stations, and interest in several cable networks for $19 billion (Albarran & Dimmick, 1996). Other merger deals that have attracted people's eyeballs include the merger deal worth $10.8 billion between US West and Continental Cablevision in 1996. The consolidation resulted in immediate combination to 25 million phone customers and 16.3 million cable subscribers (Tseng & Litman, 1998).

Even more stunning in scale and scope is AT&T's recent aggressive takeover of Teleport (local phone and Internet services) and Tele-Communication Inc. (cable TV company), and proposed merger with MediaOne (cable TV) in 1998 through 1999. Total transaction values were estimated to reach $74 billion. The deals with TCI and MediaOne would give AT&T immediate access to about 25% of all U.S. cable households. In September 1999, Viacom and CBS announced that they would merge in an $80 billion deal (MediaCentral, 1999). This single largest merger in media history, if approved, would create the largest television group in the nation and a streamlined entity covering major cable networks, production and syndication operations, videocassette rentals, and movie production houses. It seems the consolidation in telecommunications has seen no boundaries. In January, 2000 AOL announced to buy Time Warner for $156 billion. This merger is believed to trigger and facilitate another wave of transformation from old media to the Internet age (Wall Street Journal, January 11, 2000).

It has been agreed that this unprecedented wave of consolidation is the logical outcome of the passage of the Telecommunications Act of 1996, which has substantially relaxed ownership restrictions both within and across industries (Aufderheide, 1999; Chan-Olmsted, 1998; Drushel, 1998; Howard, 1998). Most of previous studies have largely focused on issues of market concentration, while technological convergence, which is also a critical issue, has been only randomly addressed. Collis, Bane, and Bradley (1997) have pointed out that the multimedia industry, as the result of digital revolution, is being formed by the convergence of three formerly distinct industries that

originated about fifty years apart. The telephone industry emerged in the 1880s, television in the late 1930s, and personal computing in the 1980s.

Indeed, it is the digital advances, more than regulatory relaxation, that have fundamentally altered the conventional market definition of telecommunications. Today, terms such as communications, telecommunications, information, and multimedia are virtually exchangeable in defining the identical industry, and it has become increasingly impossible and nonsensical to categorize the business entities in the traditional manner. In response to this paradigmatic change, the Clinton Administration unveiled in 1997 a new industry classification system—the North American Industry Classification System (NAICS)—that will replace the conventional SIC system[1]. Information is one of the new sectors recognized by NAICS. The information sector covers industries that create, distribute, or provide access to information. Major business components include satellite, cellular, print media, online services, software, database, motion picture, video programming, and the conventional telecommunications[2].

The major purpose of this paper is to provide a longitudinal examination of the impact of the 1996 Act and technological innovation on the acquisition strategies by the telecommunications industry, including TV, radio, cable TV, and telephone. Moreover, issues concerning global telecommunications expansion have become increasingly important (Gershon, 1997; Schiller, 1999). Therefore, it is also important to examine merger activities of U.S. firms that occurred in the international arena, though the 1996 Act does not directly address this aspect. Selection of acquisition target industries is based on the NAICS system to better reflect the new multimedia/information context[3].

[1] NAICS regroups the general economy into 20 broad sectors from the ten divisions of the existing SIC system. Some sectors are recompositions of parts of the SIC divisions to form new sectors. Some sectors, such as transportation and utilities, still largely reflect the major components of the SIC system. NAICS uses a six-digit code to identify industries, in contrast to the four-digit SIC code.

[2] One missing component of the information sector is the hardware equipment device industry. In the information age, standardization and vertical integration between software and hardware are essential for business operations and competitive effectiveness (Besen & Farrel, 1994; Economides, 1996; Katz & Shapiro, 1985, 1986, 1994; Redmond, 1991). It is thus believed that the inclusion of hardware equipment device in the analysis of information industry will provide a more genuine and comprehensive picture.

[3] Because the definition of communications, telecommunications, information, and multimedia often blurs, the present paper uses these terms based on their conventional definitions.

BEST COPY AVAILABLE

The Telecommunications Act of 1996

History has demonstrated that mergers and acquisitions occurred in waves (Bradley & Korn, 1981; Clark, 1985; Salter & Weinhold, 1979)[1]. Reasons for this phenomenon include legal or regulatory environment such as antitrust enforcement (Shleifer & Vishny, 1991) or tax reform (Zey & Swenson, 1999). The change in the regulatory structure not only affects the trends of M&A, but also is likely to influence the M&A strategies. For example, Shleifer and Vishny have argued that the M&A moves in the 1960s were mostly unrelated diversification, whereas the M&A activities in the 1980s were consolidation and specialization because of the differential enforcement of antitrust policy.

Gaughan (1999, chapter 2) has claimed that the transactions of the 1990s emphasized strategy more than just financial gains. Mergers in this decade were increasingly financed through the use of equity. Nilssen and Sorgard (1998), by contrast, have viewed the M&A waves from the sequential perspective. According to the authors, mergers may occur in waves because of the impact of former mergers on the subsequent ones. This aspect is perhaps best reflected in the "merger mania" in recent years in the telecom industry (Masud, 1998). From this viewpoint, the passage of the 1996 Telecommunications Act would be the most relevant issue in examining the mergers and acquisitions in the U.S. telecom industry.

The passage of the Telecommunications Act of 1996 is considered the most comprehensive overhaul of the U.S. telecom policy since the implementation of the Communications Act 1934. The 1996 Act reflects not only broad shifts in technology use, but also shifts in policy approaches (Aufderheide, 1999). Market competition and technological convergence are the two major principles of the new Act. In order to promote competition in the telecom industry, regulations regarding ownership and concentration limits have been largely loosened.

With respect to broadcasting, for example, the Commission has eliminated the numerical limit on the number of TV stations a single entity can own nationawide as long as the national reach does not exceed 35%. With regard to local radio station ownership, a single entity is allowed to own up to 8 stations in the same market as long as no more than five of the eight stations are in the same service (i.e., FM or AM).

[1] Shughar and Tollison (1984) have done a time-series study on U.S. mergers from 1895-1979. However, their research results do not support the common perception that mergers occur in waves.

BEST COPY AVAILABLE

Regulations concerning the cable industry have also been revised substantially. To promote technological convergence and cross-platform competition between cable and telephony, the new Act encourages cable systems to provide telephony services and phone companies to provide video services (a so-called two-wire solution). But neither the cable system nor the phone company are allowed to acquire more than a 10 percent financial interest in each other in the same franchise or service area. The rule of horizontal ownership in the cable industry has also been revised recently. The initial rule set a 30% cap on the market share of a cable system based on cable subscribership nationwide. Under the Third Report and Order, the 30% limit is retained, but the denominator base has been revised to encompass cable, direct broadcast satellite (DBS) and other multichannel subscribers (FCC, 1999a). This is effectively equal to 36.7% of current subscribers (FCC, 1999b).

In the telephony industry, the "interconnection" rule requires all local carriers to offer nondiscriminatory access to their networks on a wholesale or unbundled basis. Consequently, competitors are able to lease the networks to provide (i.e., resell) customers phone services. At the same time, the new Act also allows local phone companies to provide long distance services, provided they meet some prespecified rules (i.e., the "checklist").

Rationales and Strategies of Mergers and Acquisitions

A large amount of prior research has viewed mergers and acquisitions from the economic and managerial perspective (Chatterjee, 1986; Kusewitt, 1985; Montgomery & Singh, 1984; Wernerfelt, 1984). Business consolidations are assumed to enable the merging firms to achieve economic efficiencies such as financial synergies, operational synergies, managerial synergies, or market power extension (Trautwein, 1990). Hagedoorn and Sadowski (1999) have identified market entry-based and technology-based motives for business combinations. The technological aspect is critical in the information industry because technological convergence has been promoted by the FCC and is argued to be an important driving force behind recent M&A activities (see Baldwin, McVoy & Steinfield, 1996; Collis, Bane & Bradley, 1997; Greenstein & Khanna, 1997; Masud, 1998; Tseng & Litman, 1998).

Product-Based versus Resource-Based Views of M&A Strategies

Alternatively, Wernerfelt (1984) has distinguished two broader types of merger strategies. The product-oriented approach stresses the attractiveness (e.g., profitability) of the market the target firms is in. One of

the most well known models relevant to this viewpoint is product/market-portfolio model developed by the Boston Consulting Group (Salter & Weinhold, 1979, chapter 4). One of the underlying strategies of the BCG model is to move through M&A from the low-growth market (i.g., cash cows) into the high-growth market (i.e., stars). On the other hand, the resource-based strategy focuses on how the resources of the acquired firm serves to strengthen the position of the acquiring firm in the existing and the new markets. A key implication of the resource-based view is that a given target firm will have different values for different buyers.

Because of the importance of the "fit" between the resources and a firm's specialty, researchers in this field have focused on the concept of "strategic assets" to denote the skills, resources, assets, and competences of firms (Barney, 1986, 1991, Dierickx & Cool, 1989; Peteraf, 1993). Thus, the desirability of a target firm in the resource-based view is the degree of "strategic relatedness" between the two businesses (Peteraf, 1993; Teece, Rumelt, Dosi, & Winter, 1994).

While the change in regulatory environment can have a considerable impact on general M&A trends, the economic and managerial aspects at the industry and firm levels also play an important role. To gain a better understanding o the strategic behaviors of media and telecom firms in the changing market structure, it is necessary to differentiate various types of mergers and acquisitions and the underlying rationales.

Types of Integrations

Chan-Olmsted (1998) has indicated four types of M&A transactions and the respective benefits[7]. First, a company can choose to acquire or merge with another in the same production stage, that is, to adopt a horizontal M&A strategy. A merger between two radio stations, for instance, is classified as this type. The potential benefits of this horizontal integration are scale economies and an increase in market power. Clark (1985) has differentiated product extension and market extension from horizontal integration. The former means an addition of complementary products to the existing product line, whereas the latter means the expansion of market size

[7] It has to be reminded that the types of mergers are mostly based on the traditional market definition. However, the new media environment, as a result of increasing convergence, often defies a clear-cut classification. For example, some industries such as computer hardware/software and information services that were formerly regarded as unrelated to the communications industry are now virtually in a more or less vertical position

BEST COPY AVAILABLE

in different geographic locations. However, this distinction is increasingly loosing its significance in the information industry. For example, phone companies are allowed to offer altogether local call, long distance, wireline-based or wireless, services which are similar in usage but were artificially prohibited by laws formerly. TV stations and radio stations may offer different entertainment formats, but are deriving revenues from the same sources—that is, selling audiences to advertisers. Cable systems have been commonly using clustering for horizontal integration. Therefore, product extension and market extension in the communications industries might still be categorized as horizontal integration.

The second type of M&A is the vertical integration of two corporations in a supplier-buyer relationship. This strategy will ensure the acquisition of resources and control over product specifications. As far as the media market is concerned, this often means the integration of content production, distribution, and exhibition. For instance, Time Warner owns production studios (production), WB Network (distribution), and cable systems (exhibition). In addition to considerable economic efficiencies, vertical integrated industries are also assumed to have high entry barriers that discourage new entrants (Clark, 1985).

The third type is the concentric M&A, which refers to a situation in which "the acquirer and target firms are related through basic technologies, production processes, or markets" (Chan-Olmsted, 1998, p. 37). The acquired firm represents an extension of the product lines of the acquiring company or an expansion into a related market. This strategy most appropriately reflects the current phenomenon of diversification into the information industry through mergers and acquisitions. Whalen and Litman (1997) have indicated that a concentric integration can be based on concentric technology, which means the merging firms use the same technology for different customer types. It can also be based on concentric marketing, which allows the merging firms to offer same customer types products/services using different technologies. For example, the merger between a telephone company and a cable system operator represents the strategy of concentric integration. The merger between a cable system and an Internet service provider also belongs to this category. The benefits of this type of integration are economies of scope and diversification based on common core resources.

The last strategy is called conglomerate M&A, which is intended to enhance the overall stability and balance of a firm's total portfolio without any specific consideration of shared resources, technologies, or product-markets relations. Chan-Olmsted has indicated that the merger between

Matsushita and Universal Studio is an example of conglomerate M&A. This definition is, however, slightly different from what Clark (1985) termed "pure conglomerate," a consolidation of two essentially unrelated firms.

Specific Economic Factors of the Information Industry

It is also important to recognize the interrelationship between M&A strategies and economic characteristics of the industries under investigation. Acquisition is a means for corporate expansion or diversification (Rubin, 1973; Wernerfelt, 1984). A key issue to consider is how the combination of two or more firms is affecting the company's competitiveness in the short or long run. Prior research has demonstrated the links of diversifying strategies to corporate profitability and performance (Palepu, 1985; Rumelt, 1982). The incorporation of the specific industry characteristics and economic factors in the information industry, therefore, will be able give us a better understanding of the rationales behind the current merger deals.

Public Goods and Network Externalities

Shapiro and Varian (1999) have pointed out that the unique cost structure of the information industry is one of the key factors that distinguish it from other industries. Instead of the cost-based pricing strategies commonly implemented in conventional industries, the information industry often price goods based on "consumer value." According to the authors, basic economic laws still apply to the information economy (or network economy), but they need to be viewed from a different perspective.

Both the media and telecom industries (an other information businesses) involve high sunk costs in the establishment of network infrastructure for signal or data transmission. On the other hand, media and telecom products/services have the public-good characteristic, which involves only nominal marginal costs. This makes market size a very important factor in the communications industries relative to others because the bigger the market size, the faster the returns on investment. Consequently, M&A strategies that can lead to market power enhancement, such as horizontal integration, are likely to have a much greater impact in the telecom industry than in other areas.

A similar factor that is specific to the information industry is the effect of network externality or positive feedback (Owen, 1999; Shapiro & Vairan, 1999; Stehmann, 1996). An additional customer increases the overall utility of the network, making the product/service more valuable and attractive to potential customers. Consequently, the larger the market size and customer base of a product/service, the more valuable it becomes for new customers

(e.g., advertisers). This factor also serves to magnify the impact of horizontal integration.

Economies of Windowing

Another distinctive feature of the information industry, and video programming services in particular, is the notion of "windowing" (Owen & Wildman, 1992). "Versioning" is the general term used by economists (Shapiro & Varian, 1999). The media industry consists primarily of content production, distribution, and exhibition. Thanks to new media technologies, the same programming content such as a movie can nowadays be distributed via a variety of channels ranging from movie theaters, cable TV, DBS, other multichannel systems, and TV broadcast networks. A media producer can benefit from economies of windowing by releasing a program, often produced at a fixed cost, in different channels at different times, domestically and worldwide. The same logic also applies to other information content that can be digitalized and transmitted through diverse distribution channels.

As a consequence, vertical integration in the media industry can bring about not only the control of resources or distribution channels, but also considerable benefits from windowing economies. To the extent that the media industry is increasingly moving toward conglomerization (Gershon, 1997) and what Albarran and Dimmick (1996) have referred to as "across-industry concentration," conglomerate integration is also an important aspect in the investigation of M&A activities.

Multimedia Technology and Media Convergence

While technological advancement continues to create new communication and media forms, it has also increasingly blurred the initially well-defined market boundaries (Collis, Bane & Bradley, 1997; Greenstein & Khanna, 1997; Owen, 1999). Meanwhile, the FCC not only is playing a facilitating role in technological convergence; it also has started to restructure the organization to accommodate the new media environment (FCC, 1999c). It should be emphasized again that the Department of Commerce has also revised the industry classification system (i.e., NAICS) that reflects these changes.

Indeed, issues concerning convergence-based consolidation have already attracted considerable attention from practitioners as well as academia. Masud (1998) has argued that "consolidation, convergence, and competition" are the three driving forces behind the current wave of telecom megamergers. Similarly, Raphael (1998) has predicted that "converging alliance" is the trend of the future, in which "partners offer different products

technologies, and markets" (p. 34). Colombo and Garrone (1998) also have claimed that common carriers should choose to be a "multimedia service provider" rather than a "network operator" to remain competitive[6]. From this perspective, concentric integration and vertical integration are the most relevant to business consolidation in the telecom and media industry.

Hypotheses and Research Questions

Previous studies on M&A in the telecommunications industries often emphasized the issues of public policy such as antitrust and market failure. Furthermore, most of them focused only on one specific industry such as radio, TV, cable TV, or telephony. Accordingly, horizontal integration and concentration were the major concern. While it is important to address the policy issues, an examination of the M&A strategies from a broader perspective is also essential. Therefore, the present paper attempts to go beyond the conventional market definition and provide an overview of the M&A patterns in the new information context.

In addition to the enlarged scope, the present paper also extends the time period to 20 years from 1980 through 1999. This not only adds a historical perspective to the study. It also provides a comparison of M&A patterns between the two decades.

We anticipate that horizontal integration would still take the primary position in this telecommunications merger wave. However, we are also interested in the patterns of corporate diversification and its strategic implications. Major concerns of this paper are the following four aspects:

RQ 1: How has the 1996 Telecommunications Act affected the M&A patterns in the information industry?

RQ 2: How did the four communications sectors—TV, radio, cable TV, and telephony—differ in acquisition patterns?

RQ3: How did the four communications sectors differ in acquisition of foreign companies?

RQ4: What are the possible causes for these differences, if any?

Research Method

The SDP Platinum is the single database used for this paper. All merger cases announced as well as completed from 1980 to 1999 by the

[6] Shapiro and Varian (1999) also have pointed out the information (software) and the infrastructure (hardware) sides of the information industry. They have argued that the two sides are inexorably linked and represent a classical example of complements in the information industry.

communications industries were recorded. However, only completed cases were used for analysis.

The selection of merger cases in this paper is different from previous studies in some aspects. First, both majority (over 50%) and minority mergers (lower than 50%) were included. Second, the cases with smaller or nonavailable transaction values were also included. This is intended to make the database as comprehensive as possible because prior research has been criticized that the inclusion of only merger cases with larger transaction values might have introduced certain biases and the consolidation dynamics might have been understated (Clark, 1985, chapter 2; Golbe & White, 1988).

It has to be kept in mind, however, that other nonequity cases such as strategic alliances are not included in the present. Although the inclusion of this part is likely to affect the results substantially, if not dramatically, it is impossible for this paper to take this aspect into account due to lack of resources. Therefore, the findings must be viewed with caution.

Multivariate factorial design with two independent variables (4 × 2) and twelve dependent variables was employed to examine the impact of the 1996 Act and the influence of industrial characteristics of the acquiring communications sectors on the acquisition patterns with respect to the overall information industry. The first independent variable, acquiror, has four levels—that is, TV, radio, cable, and telephony. The second independent variable, teleact, has two levels—before and after 1994. The choice of 1994 instead of 1996 as the cutoff year to represent the impact of the 1996 Act is assumed to better reflect the real situation and is believed to be consistent with prior research findings that the industries already took actions in anticipation of the passage of the new law.

With respect to dependent variables, the selection of individual information-related acquisition target industries was based on the new NAICS classification system. Eleven target industries were selected, they are TV, radio, cable, telephony, communications equipment, film/video, computer hardware, publishing, information services, sound/audio, and computer software. Because we are also interested in the acquisitions of foreign companies, a twelfth variable, foreign investment, was included. The classification of the acquiror is based on the SIC code provided by the database. A caveat has to be made that some media firms, such as Cox and Time Warner, have already a certain degree of diversification, and it is difficult to give these firms a precise industry boundary. We admit that a more detailed classification will definitely shed more insights into the diversification patterns of the industries.

Values of the dependent variables represent the percentages of the number of merger deals in individual target industry in proportion to the total deals completed by the acquiring industries in the year. The use of percentage served to remove the effect that the acquiring industry with a larger number of establishments tended to have a higher level of merger activity. The decision to use number of acquisition deals instead of transaction values to represent the level of M&A activity is because a considerable amount of data do not have the transaction values available.

Results

Two-way MANOVA was first performed to test the overall effect. Based on Wilk's lambda, both independent variables, acquiror (F (36, 181) = 28.60, p = .00) and teleact (F (12, 61) = 3.56, p = .00), are found to have significant effects. The interaction effect is only marginal, F (36, 181) = 1.40, p = .08.

Two-way ANOVA was also performed for each dependent variable to examine the variances in individual target sectors. Table 1 summarizes the results. The nature of the acquiring industries is found to have a significant effect on patterns and strategies of acquisition in all the target sectors, except audio/sound and software. The findings also show that the 1996 Act has significant impact on the acquisition patterns in the publishing and information services sectors. Fs (1, 72) = 7.65 and 20.43, respectively, ps = .01 and .00, respectively. Moreover, there is a significant interaction between the characteristics of acquiring industries and the 1996 Act in the publishing sector. F (3, 72) = 3.22, p = .03. There is also a marginal interaction effect in the information services sector, F (3, 72) = 2.53, p = .06.

Because we anticipate that mergers of firms of the same type (i.e., horizontal integration) would be the major source of variances, Scheffe's post hoc analysis was subsequently performed to see if mergers of other types than horizontal integration also generate significant variances. As anticipated, horizontal integration is the most prevalent acquisition strategy. That is, TV broadcasters are significantly more likely to acquire TV stations. Radio group owners are more likely to acquire other radio stations. Cable companies are the major acquirors of cable systems. Mergers between telcos are more likely than mergers between telcos and other communications industries. In addition, the post hoc multiple comparisons also show that

[1] Other criteria such as Pillai's trace, Hotelling's trace, and Roy's largest root also show similar results. However, the interaction effect is found significant based on Roy's largest root, F (12, 63) = 2.63, p = .01.

radio station owners are significantly more interested than telcos in purchasing TV stations. Similarly, TV broadcasters also exhibit a greater interest than cable companies and telcos in acquiring radio stations.

With respect to other target sectors, telcos are more likely than the other three industries to acquire manufacturers of communications equipment, computer hardware companies as well as information services providers. TV broadcasters are significantly more interested in merging with video/film companies and publishers.

With respect to acquisition of foreign companies, type of acquiring industry is found to have a significant main effect, F (3, 72) = 16.54, p = .00. Telephone and cable TV companies are much more likely than TV and radio broadcasters to acquire foreign communications firms. It is also found that the level of foreign acquisitions is significantly different before and after 1994, F (1, 72) = 21.57, p = .00. There is only a marginal interaction effect, F (3, 72) =2.56, p = .06.

Discussion

General Acquisition Patterns

From 1980 through 1999, there were 5383 merger deals announced by the communications industries that were related to the emerging information industry. Actual number of completed transactions was 3502, with 45% failing to materialize. The results have shown some general patterns. First, the total number of merger transactions started to increase rapidly around 1993 and has remained at the high level thereafter (see Figure 1). There were 182 merger deals completed in 1993, an increase of more than 37% from the previous year. The number increased further by 38% to more than 250 deals in the following year. The total number of completed merger transactions in 1999 has reached 417.This situation is consistent with previous research findings that the industries already took actions in anticipation of the new Telecom Act (Chan-Olmsted, 1998; Drushel, 1998; Howard, 1998).

Second, the trend of acquisition of foreign companies also started to gather momentum in 1993. While there were only 74 (3.4%) such deals completed from 1980 through 1993, the number of foreign acquisitions increased more than three times to reach 238 deals (8.5%) from 1994 through 1999. One of the most important driving forces behind this trend is the privatization and liberalization in the global telecom markets in the late 1980s and early 1990s that have provide U. S. communications suppliers with new promising markets (Gershon, 1997; McChesney, 1998; Schiller, 1999). The increasing needs of residential and business customers for

BEST COPY AVAILABLE

multiple voice and data services beyond local, national, and regional boundaries have also been driving telecom companies to go global (Jamison, 1998).

Nevertheless, it should be noted that the cable TV and, in particular, telephony industries have been much more active in foreign investment than the broadcasting TV and radio sectors. Foreign acquisitions accounted for 7.7% and 8.5% for cable TV and telcos respectively, while deals such as these took a share of only 2.9% for the TV industry and less than 1% for radio group owners. This discrepancy might be explained by the sensitive role played by the mass media. Mass media such as radio and television have long been considered culturally and sociologically sensitive (Boyd-Barrett, 1998; Cunningham, Jacka & Sinclair, 1998; Kavoori, 1998). Issues such as "cultural imperialism" and "national sovereignty" may have impeded foreign investments by U.S. media firms.

Third, results have exhibited a temporary surge (i.e., a brief merger wave) in the later years of the 1980s. But the trading level died down quickly in the early 1990s. In 1987, the number of merger surpassed 100 and continued to reach more than 150 in 1988 and 1989. The momentum shrank quickly in the 1990-1992 period, though the trading level still remained at around 120 deals per year. The most part of this mild merger wave mainly came from the horizontal integration in the cable TV and telephony industries. Whether there is any particular reason for this slight increase is beyond the scope of the present paper. However, we could speculate that economic recession in the early 1990s might be an important reason for the slight decline.

Merger Strategies in Respective Industries

In addition to the general acquisition patterns as consequences of the interplay among deregulation, technological advancement, and global market liberalization, the nature and characteristics of individual communications industries also have considerable impact on their respective acquisition strategies. Tables 2 through 5 document the acquisition patterns of individual sectors from 1980 through 1999.

TV Broadcasting

Compared to other communications industries, the TV broadcasting industry has stood out as having the most diversified acquisition patterns. Overall, nearly 50% of all merger deals completed in the past 20 years were purchases of other TV stations (i.e., pursuit of horizontal integration). Almost 48% of all merger deals completed by the TV industry annually would be

classified as horizontal integration in the 1980s; the percentage increased to only 51% after 1994.

Radio broadcasting was the second largest segment to attract TV broadcasters. Purchases of radio stations by TV station owners, which could be classified as market extension as mentioned in the literature review, accounted for 17% of total merger deals completed during the past 20 years. Nevertheless, TV broadcasters were more likely to purchase radio stations in the 1980s than in the 1990s. An annual average of 17% belonged to buying radio stations in the 1980s; the percentage dropped to 12% in the 1990s.

TV broadcasters' interest in the radio market is understandable. First, the close relationship between TV and radio broadcasting can be dated back to the early 20th century. The three major TV networks ABC, CBS, and NBC all have played an important role in the emergence of the commercial radio industry (Owen, 1999, chapters 3-4). Moreover, both have been subject to similar regulations. Second, both the TV and radio industries are relying on advertising as the primary revenue resource. This suggests that both industries have established to a large extent similar management and selling skills. Colombo, Garrone, and Seri (1999) have argued that valuable knowledge is often influenced by the firm's past behavior and the context in which the firm is embedded. This historical background often dictates the firm's learning process and the routine of problem solving. Since acquisition is a type of investment and is risky by nature, it is not surprising that TV station owners are more likely than cable companies and telcos to acquire radio stations.

The TV industry also has shown a considerable interest in the cable TV market. The attraction of cable TV to TV broadcasters became most obvious in the latter half of the 1990s. Since both TV and cable are providing video programming services, it is also understandable that cable TV would be a natural diversification of TV station owners, particularly when the 1996 Act has largely relaxed the cross-ownership constraints. On average, 9.6% of total transactions were acquisitions of cable systems by TV stations owners. TV broadcasters seemed also to be attracted to other information-related industries. For example, 5.1% of total completed merger deals by TV owners were acquisitions of film/video firms; 6.2% were purchases of publishing firms. On average, acquisition of information services providers accounted for 5.7% of merger transactions per year. In summary, the TV industry has been implementing a greater degree of diversification relative to other communications sectors.

Radio Broadcasting

Compared to other communications industries, the radio industry has been the most persistent in pursuing horizontal integration. Overall, 569 out of 698 merger deals pursued by radio broadcasters from 1980 through 1999 were acquisitions of other radio stations. This translates into 81.5% of total completed merger transactions. The impact of ownership relaxation as a result of the passage of the 1996 Act has been obvious. In the 1980s, about 62.5% of all merger deals completed by radio group owners were horizontal integration with other radio stations. The percentage rose to nearly 81% in the following decade.

Reflecting the acquisition strategy by TV broadcasters, the radio industry has exhibited a reciprocal interest in the TV broadcasting market. Altogether, acquisitions of TV stations have accounted for more than 10% of radio groups' general merger portfolio in the past 20 years. As a result of this mutual interest and cross-ownership, the overall broadcasting industry has become increasingly consolidated. For example, based on FCC's (1998) data, CBS owned 15 TV stations that were able to reach nearly 31% of national TV household and 172 radio stations. Sinclair owned 33 TV stations and 58 radio stations, to name just a few.

Unlike other communications sectors, the radio broadcasting industry tended to be very quiet in other information-related markets. Except for radio and TV stations, acquisition activities in other industries such as cable, information services, telephone, and equipment have all accounted for no more than 2% of total acquisition deals. The concentration on core business could be explained from two perspectives. For one thing, the still profitable market might partly explain why the radio industry has been persistently focusing on horizontal integration. For another, technological constraints might have limited radio stations' role in the information industry. While digitization is believed to provide radio stations with technological possibility of enhancing sound quality, it is still not economically viable at the current stage. Moreover, unlike cable systems or telcos, radio stations are short of the necessary pipeline infrastructure for multimedia services.

Cable TV

Although cable TV owners have shown some degree of diversification in their acquisition planning, purchases of cable companies (487 deals) still accounted for 74% of total acquisition deals completed in the past 20 years. This is next to the 81.5% of radio group owners. As mentioned earlier, "clustering" has been the major acquisition strategy, which served to create a broader and seamless market areas. In addition to scale economies, regional clusters also would be more attractive to regional advertisers seeking to reach

audiences outside the more limited franchise areas. Moreover, the strategy of consolidating numerous franchise areas into one broader service region has been believed to provide cable companies with competitive advantages in the information markets such as cable telephony, broadband access, and other information services.

While digital technologies have increasingly enhanced the strategic role played by the cable industry in media convergence, cable TV is conventionally a video programming service provider. Accordingly, it is not surprising to find that cable companies would have a certain degree of interest in acquiring TV stations (7.3%) and in having a stake in the film/video industry (3.5%), though to a much lesser extent. Strategy of this type could be classified as vertical integration that was intended to streamline the three stages of content production, distribution, and exhibition. As mentioned previously in the literature review, vertical integration in the conventional media industry serves not only to secure the programming resources but also to take advantage of "windowing" economies.

Somewhat out of our anticipation, the cable industry has not shown enough enthusiasm in the acquisition of telcos (6.4%) and information services providers (2.7%), especially when the FCC has been advocating the "two-wire" solution of counting on cable networks as efficient infrastructure for Internet telephony and broadband services. We suggest that the situation could be explained that cable video delivery service is still a cash-generating and growing market. There is less need for diversification. On the other hand, although cable telephony and broadband access provide cable companies with new business opportunities, the former has yet be to economically viable, and the latter can be based on contractual agreement with services providers. Indeed, some industry analysts have argued that cable companies should do three things to fully realize their potential—that is, in order of importance, (1) reduce debt, (2) focus on core business, and (3) move into new businesses where appropriate (Hodes, Duwadi, & Wise, 1999).

Telcos

Similar to the TV industry, telcos have been more enthusiastic about diversification. Most noteworthy is the industry's interest in entering the information services sector. Whereas horizontal integration still accounted for more than 67% of total acquisition deals in the past 20 years, acquisitions of information services providers also shared nearly 16%. The number of mergers with information services providers started to increase in the early 1990s, but the change was most dramatic after 1994. There were 13 such

BEST COPY AVAILABLE

deals being completed in 1994. The number reached 74 in 1999. The major source for this increase was the booming ISP market.

The number of acquisitions of cable companies by telcos also started to rise around 1994, reflecting the impact of regulatory relaxation of the 1996 Act, which allows cable systems and telcos to enter each other's market. The deregulation impact, however, has not been as great as anticipated, probably because the new Act still prohibits cross-ownership between a cable company and a telco in the same service area. Total number of such deals accounted for only 5.3% of all transactions by telcos in the past 20 years. This compares to the 9.6% by the TV industry.

Telephone companies' (i.e., RBOCs) interest in the cable TV market can be traced back to the early 1980s when the United States Independent Telephone Association petitioned the FCC to drop the restriction on local cross-ownership (Baldwin, McVoy, & Steinfield, 1995, pp. 10-13). The need for business diversification into the cable market has become more acute in recent years when the telephone market became increasingly competitive and was growing only slightly (Foley, 1992).

A series of commissioned studies on the impact of RBOCs' entry into the cable market was conducted in the late 1980s and early 1990s (see Johnson, 1992a, 1992b; Johnson & Reed, 1990). Although digitization technologies have made possible video programming delivery over telephone networks, the different infrastructure deployment (i.e., switch-based transmission) has dampened the prospect. The studies have concluded that telephone and video services would continue to be offered on separate networks. In fact, some Bells such as Ameritech and Bellsouth have chosen to deploy their own cable networks in some overbuild markets. However, they have not yet posed any serious threat to incumbent cable operators.

Compared to other communications sectors, the telephony industry has been quite unique in its interesting in the markets of communications equipment and, to a lesser extent, computer hardware. Over the past 20 years, telephone companies have made 89 deals to acquire manufacturers or retailers of communications equipment/devices, which accounted for about 5% of total acquisitions. The number of acquisitions of computer hardware companies (44) accounted for 2.6%. Although the reason for this unique acquisition strategy needs further examination, we speculate that this might be related to the fact that telcos have traditionally been allowed to sell communications equipment.

In summary, we suggest that the acquisition strategies by telephone companies with respect to the information industry have been largely affected by their historical background and regulatory environment.

Furthermore, similar to the situation in the TV industry, the considerable degree of diversification has reflected telcos' need for expansion into new business opportunities because competition in the telephone market has become increasingly intense and the market is growing slowly.

Conclusion

The passage of the 1996 Act has ushered into the media and telecom industries a spectacular era of consolidation and convergence that has rarely occurred in the telecommunications history. In order to promote competition, the FCC has allowed a considerable degree of ownership concentration. It is unlikely that this wave of mergers and acquisitions will abate any time soon. This is especially true in information industry, in which the nature of public goods and network effects all support the competitive advantage of "being big."

The present paper uses the new industrial classification system (i.e., NAICS) and a 20-year timeframe in an attempt to provide a comprehensive picture on the M&A activity in the telecommunications/information industries. We conclude that there are at least three driving forces behind the major increase of M&A activity in the 1990s. First, digital technology has become increasingly mature and economically viable. Because of its converging power, the telecommunications industries are facing a fundamental change. This paradigmatic shift not only poses serious threat to the existence of conventional communications and media industries, but also creates new business opportunities for them. Second, the 1996 Telecommunications Act has considerably deregulated the telecommunications markets. Likewise, this has given communications companies more freedom to enter new markets and has concurrently introduced intense competition into the traditionally oligopolistic or monopolistic telecommunications markets. Third, the above two situations are also happening globally and creating new markets for U.S. companies. Accordingly, acquisition serves simultaneously as an efficient way of strengthening competitive competence against new entrants and overcoming entry barriers into new markets.

We also have found that the telecommunications industries are pursuing different patterns and strategies of acquisition. We suggest that the strategy is largely dependent on the historical background of the industries. Based on the resource-based view of corporate diversification, we also suggest that the communications industries are more likely to acquire companies that are closely related in terms of management skills, technological expertise, and the like.

However, it should be noted that M&A activity is a type of investment decision that is inherently a risky decision. Hence, the tendency to acquire companies in a related industry can be interpreted as a natural behavior of risk aversion. Whether this is a more realistic reason requires further study.

Another limitation of the present paper is that the dynamics of joint ventures and strategic alliances are not addressed. The patterns of nonequity partnership may present a different picture as opposed to M&A activity. We believe that research in this respect will deepen our understanding of the behavior of telecommunications companies in a time of dramatic change.

References

Albarran, A. B. & Dimmick, J. (1996). Concentration and economies of multiformity in the communication industries. Journal of Media Economics, 9(4), 41-50.

Aufderheide, P. (1999). Communications policy and the public interest: The Telecommunications Act of 1996. New York: The Guilford Press.

Baldwin, T. F., McVoy, D. S., & Steinfield, C. (1995). Convergence: Integrating media, information & Communication. Thousand Oaks, CA: Sage.

Barney, J. B. (1986). Strategic factor markets: Expectations, luck and business strategy. Management Science, 32, 1231-1241.

Barney, J. B. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17, 99-120.

Besen, S. M., & Farrel, J. (1994). Choosing how to compete: Strategies and tactics in standardization. Journal of Economic Perspectives, 8(2), 117-131.

Boyd-Barrett, O. (1998). Media imperialism reformulated. In D. K. Thussu (Ed.), Electronic empires: Global media and local resistance (pp. 157-176). New York: Arnold.

Bradley, M. W., & Korn, D. H. (1981). Acquisition and corporate development: A contemporary perspective for the manager. Lexington, MA: LexingtonBooks.

Chan-Olmsted, S. M. (1998). Mergers, acquisitions, and convergence: The strategic alliances of broadcasting, cable television, and telephone services. Journal of Media Economics, 11(3), 33-46.

Chatterjee, S. (1986). Types of synergy and economic value: The impact of acquisitions on merging and rival firms. Strategic Management Journal, 7, 119-139.

Clark, J. J. (1985). Business merger and acquisition strategies. Englewood Cliffs, NJ: Prentice-Hall.

Collis, D. J., Bane, P. W., & Bradley, S. P. (1997). Winners and losers: Industry structure in the converging world of telecommunications, computing, and entertainment. In D. B. Yoffie (Ed.), Competing in the age of digital convergence (pp. 159-200). Boston, MA: Harvard Business School Press.

Colombo, M. G., & Garrone, P. (1998). Common carriers' entry into multimedia services. Information Economics and Policy, 10, 77-105.

Colombo, M. G., Garrone, P., & Seri, R. G. (1999). Firms' heterogeneity and dynamics of entry in a new sector: An empirical analysis of multimedia sector. In E. Bohlin, K. Brodin, A. Lundgren, & B. Thorngren (Eds.), Convergence in communications and beyond. Amsterdam: Elsevier Science, forthcoming.

Cunningham, S., Jacka, E., & Sinclair, J. (1998). Global and regional dynamics of international television flows. In D. K. Thussu (Ed.), Electronic empires: Global media and local resistance (pp. 177-192). New York: Arnold.

Dierickx, I., & Cool, K. (1989). Asset stock accumulation and sustainability of competitive advantage. Management Science, 35, 1504-1514.

Drushel, B. E. (1998). The Telecommunications Act of 1996 and radio market structure. Journal of Media Economics, 11(3), 3-20.

Economides, N. (1996). The economics of networks. International Journal of Industrial Organization, 14, 673-699.

Federal Communications Commission (1998). In the matter of 1998 biennial regulatory review. MM Docket NO. 98-35.

Federal Communications Commission (1999a). Third report and order and fourth further notice of proposed rulemaking. CC Docket NO. 96-98.

Federal Communications Commission (1999b, October 8). FCC revises cable horizontal ownership and attribution rules. [http://www.fcc.gov/Bureaus/Cable/News_Releases/1999/nrcb9016.html]

Federal Communications Commission (1999c, August). A new FCC for the 21st century: Draft strategic plan. [http://www.fcc.gov/21st_century/draft_strategic_plan.pdf]

BEST COPY AVAILABLE

Foley, J. M. (1992). Economic factors underlying telephone company efforts to enter home video distribution. Journal of Media Economics, 5(3), 57-68.

Gaughan, P. A. (1999). Mergers, acquisitions, and corporate restructurings. New York: John Wiley & Sons, Inc.

Gershon, R. A. (1997). The transnational media corporation: Global messages and free market competition. Mahwah, NJ: Lawrence Erlbaum Associates.

Golbe, D. L., & White, L. J. (1988). A time-series analysis of mergers and acquisitions in the U.S. economy. In A. J. Auerbach (Ed.), Corporate takeovers: Causes and consequences (pp. 265-302). Chicago: University of Chicago Press.

Greenstein, S., & Khanna, T. (1997). What does industry convergence mean? In D. B. Yoffie (Ed.), Competing in the age of digital convergence (pp. 201-226). Boston, MA: Harvard Business School Press.

Hagedoorn, J., & Sadowski, B. (1999). The transition from strategic technology alliances to mergers and acquisitions: An exploratory study. Journal of Management Studies, 36(1), 87-107.

Hodes, D., Duwadi, K., & Wise, A. (1999). Cable's expanding role in telecommunications. Business Economics, 34(2), 46-51.

Howard, H. H. (1998). The 1996 Telecommunications Act and TV stations ownership: 1 year later. Journal of Media Economics, 11(3), 21-32.

Jamison, M. A. (1998). Emerging patterns in global telecommunications alliances and mergers. Industrial and Corporate Change, 7(4), 695-713.

Johnson, L. L. (1992a). Common carrier video delivery by telephone companies. R-4166-MF/RL. RAND.

Johnson, L. L. (1992b). Telephone company entry into cable television: Competition, regulation, and public policy. RAND.

Johnson, L. L., & Reed, D. P. (1990). Residential broadband services by telephone companies? Technology, economics, and public policy. R-3906-MF/RL. RAND.

Katz, M. L., & Shapiro, C. (1985). Network externalities, competition, and compatibility. American Economic Review, 75(3), 424-440.

Katz, M. L., & Shapiro, C. (1986). Technology adoption in the presence of network externalities. Journal of Political Economy, 94(4), 822-841.

Katz, M. L., & Shapiro, C. (1994). Systems competition and network effects. Journal of Economic Perspectives, 8(2), 93-115.

Kavoori, A. P. (1998). Trends in global media reception. In D. K. Thussu (Ed.), Electronic empires: Global media and local resistance (pp. 193-207). New York: Arnold.

Kusewitt, J. B., Jr. (1985). An exploratory study of strategic acquisition factors relating to performance. Strategic Management Journal, 6, 151-169.

Masud, S. (1998, October). Telecom merger mania: New strategies, players, and markets. Telecommunications, 32(10), 28-34.

McChesney, R. W. (1998). Media convergence and globalization. In D. K. Thussu (Ed.), Electronic empires: Global media and local resistance (pp. 27-46). New York: Arnold.

MediaCentral (1999, September 7). Viacom, CBS to do $80B merger. [http://www.mediacentral.com/channels//tv/936717877_502.html]

Montgomery, C. A., & Singh, H. (1984). Diversification strategy and systematic risk. Strategic Management Journal, 5, 181-191.

Nilssen, T., & Sorgard, L. (1998). Sequential horizontal mergers. European Economic Review, 42, 1683-1702.

Owen, B. M. (1999). The Internet challenge to television. Cambridge, MA: Harvard University Press.

Owen, B. M., & Wildman, S. S. (1992). Video economics. Cambridge, MA: Harvard University Press.

Palepu, K. (1985). Diversification strategy, profit performance and the entropy measure. Strategic Management Journal, 6, 239-255.

Peteraf, M. A. (1993). The cornerstones of competitive advantage: A resource-based view. Strategic Management Journal, 14, 179-191.

Raphael, D. E. (1998). The future of telecommunications: Connectivity through alliances. Business Economics, 33(2), 32-36.

Rathbun, E. A. (1999a, February 15). Dealing for dollars: TV and radio top sellers in 1998. Broadcasting & Cable, 129(7), 36-57.

Redmond, W. H. (1991). When technologies compete: The role of externalities in nonlinear market response. Journal of Innovation Management, 81, 170-183.

Rubin, P. H. (1973). The expansion of firms. Journal of Political Economy, 81(4), 936-949.

Rumelt, R. P. (1982). Diversification strategy and profitability. Strategic Management Journal, 3, 359-369.

Salter, M. S., & Weinhold, W. A. (1979). Diversification through acquisition: Strategies for creating economic value. New York: The Free Press.

Schiller, D. (1999). Digital capitalism: Networking the global market system. Cambridge, MA: The MIT Press.

Shapiro, C., & Varian, H. R. (1999). Information rules: A strategic guide to the network economy. Boston, MA: Harvard Business School Press.

Shleifer, A., & Vishny, R. W. (1991). Takeovers in the '60s and the '80s: Evidence and implications. Strategic Management Journal, 12, 51-59.

Shughart, W. F., & Tollison, R. D. (1984). The random character of merger activity. Rand Journal of Economics, 15(4), 500-509.

Stehmann, O. (1995). Network competition for European telecommunications. Oxford, NW: Oxford University Press.

Teece, D. J., Rumelt, R., Dosi, G., & Winter, S. (1994). Understanding corporate coherence: Theory and evidence. Journal of Economic Behavior and Organization, 23, 1-30.

Tseng, K. F. & Litman, B. (1998). The impact of the Telecommunications Act of 1996 on the merger of RBOCs and MSOs: Case study: The Merger of US West and Continental Cablevision. Journal of Media Economics, 11(3), 47-64.

Trautwein, F. (1990). Merger motives and merger prescriptions. Strategic Management Journal, 11, 283-295.

Whalen, P., & Litman, B. R. (1997). Short-circuited mergers in the mass media: Credible and Incredible evidence. In C. Warner (Ed.), Media management review (pp. 65-90). Mahwah, NJ: Lawrence Erlbaum Associates.

Wernerfelt, B. (1984). A resource-based view of the firm. Strategic Management Journal, 5, 171-180.

Zey, M., & Swenson, T. (1999). The transformation of the dominant corporate form from multidivisional to multisubsidiary: The role of the 1986 Tax Reform Act. Sociological Quarterly, 40(2), 241-267.

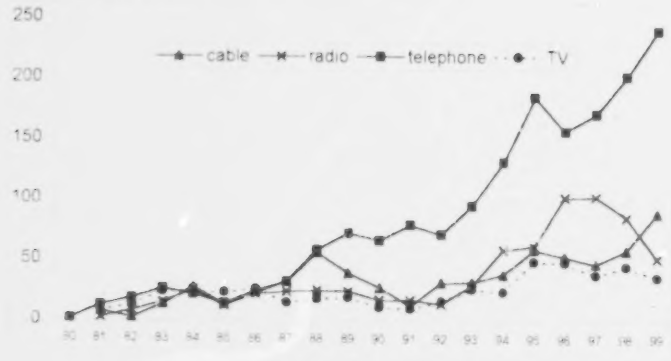
BEST COPY AVAILABLE

Table 1. Results of Two-Way ANOVA for Individual Target Sectors.

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
ACQUIROR	TV	23,445.46	3, 72	7,815.15	58.27	.00
	RADIO	63,029.61	3, 72	21,009.87	107.94	.00
	CABLE	48,930.36	3, 72	16,310.12	76.60	.00
	PHONE	47,994.93	3, 72	15,998.31	75.21	.00
	EQUIP	296.57	3, 72	98.86	10.51	.00
	VIDEO	188.79	3, 72	62.93	4.35	.01
	HARDWARE	165.65	3, 72	55.22	5.04	.00
	PUBLISH	292.21	3, 72	97.40	7.09	.00
	SERVICE	1,568.70	3, 72	522.90	17.32	.00
	AUDIO	6.78	3, 72	2.26	2.16	.10
	SOFTWARE	.12	3, 72	.04	1.60	.20
	foreign investment	993.78	3, 72	331.26	16.54	.00
TELEACT	TV	228.43	1, 72	228.43	1.71	.20
	RADIO	415.17	1, 72	415.17	2.13	.15
	CABLE	283.11	1, 72	283.11	1.36	.25
	PHONE	243.04	1, 72	243.04	1.14	.29
	EQUIP	.05	1, 72	.05	.01	.94
	VIDTO	9.51	1, 72	9.51	.66	.42
	HARDWARE	13.53	1, 72	13.53	1.24	.27
	PUBLISH	105.19	1, 72	105.19	7.65	.01
	SERVICE	615.89	1, 72	615.89	20.43	.00
	AUDIO	2.95	1, 72	2.95	2.81	.10
	SOFTWARE	.00	1, 72	.00	.01	.92
	foreign investment	432.09	1, 72	432.09	21.57	.00
ACQUIROR * TELEACT	TV	321.36	3, 72	107.12	.80	.50
	RADIO	934.07	3, 72	311.36	1.60	.20
	CABLE	556.12	3, 72	186.04	.90	.45
	PHONE	83.77	3, 72	27.92	.13	.94
	EQUIP	17.74	3, 72	5.91	.83	.50
	VIDEO	24.82	3, 72	8.27	.57	.63
	HARDWARE	35.92	3, 72	11.97	1.09	.36
	PUBLISH	132.85	3, 72	44.28	3.22	.03
	SERVICE	229.38	3, 72	76.46	2.53	.06
	AUDIO	1.28	3, 72	.43	.41	.75
	SOFTWARE	.00	3, 72	.00	.01	1.00
	foreign investment	153.62	3, 72	51.21	2.56	.06

a. Computed using alpha = .05

Figure 1. Level of M&A Activity of Communications Industries from 1980 through 1999



Year	Acquiror sector								Grand Total	
	cable		radio		telephone		TV			
80		n.a.		n.a.	1	n.a.		n.a.	1	n.a.
81	7	n.a.	2	n.a.	12	1100.00%	7	n.a.	28	2700.00%
82	2	-71.43%	8	300.00%	18	50.00%	13	85.71%	41	46.43%
83	13	550.00%	15	87.50%	26	44.44%	24	84.62%	78	90.24%
84	27	107.69%	25	66.67%	21	-19.23%	23	-4.17%	96	23.08%
85	13	-51.85%	12	-52.00%	14	-33.33%	23	0.00%	62	-35.42%
86	23	76.92%	22	83.33%	24	71.43%	26	13.04%	95	53.23%
87	32	39.13%	24	9.09%	32	33.33%	15	-42.31%	103	8.42%
88	56	75.00%	25	4.17%	58	81.25%	18	20.00%	157	52.43%
89	39	-30.36%	24	-4.00%	72	24.14%	19	5.56%	154	-1.91%
90	27	-30.77%	17	-29.17%	66	-8.33%	11	-42.11%	121	-21.43%
91	12	-55.56%	17	0.00%	79	19.70%	10	-9.09%	118	-2.48%
92	31	158.33%	14	-17.65%	71	-10.13%	16	60.00%	132	11.86%
93	32	3.23%	29	107.14%	95	33.80%	26	62.50%	182	37.88%
94	38	18.75%	59	103.45%	131	37.89%	24	-7.69%	252	38.46%
95	59	55.26%	62	5.08%	185	41.22%	49	104.17%	355	40.87%
96	53	-10.17%	102	64.52%	157	-15.14%	48	-2.04%	360	1.41%
97	47	-11.32%	103	0.98%	171	8.92%	38	-20.83%	359	-0.28%
98	58	23.40%	86	-16.50%	202	18.13%	45	18.42%	391	8.91%
99	89	53.45%	52	-39.53%	240	18.81%	36	-20.00%	417	6.65%
Grand Total	658		698		1575		471		3502	

*Percentages represent growth rates

Table 2. Acquisition Patterns of the TV Broadcasting Industry

year	acquiror	Target sectors														Grand Total
		cable		comm equip	film/ video	hardware	publish	radio	service	sound/ audio	phone		TV			
1981	TV		0.0%	0.0%		0.0%	1 14.3%	0.0%	0.0%	0.0%	1	14.3%	5	71.4%		7
1982	TV	1	7.7%	0.0%		0.0%	2 15.4%	2 15.4%	0.0%	0.0%	3	23.1%	5	38.5%		13
1983	TV	1	4.2%	0.0%		0.0%	3 12.5%	5 20.8%	1 4.2%	0.0%	3	12.5%	11	45.8%		24
1984	TV	2	8.7%	0.0%		0.0%	4 17.4%	3 13.0%	0.0%	0.0%	2	8.7%	12	52.2%		23
1985	TV	2	8.7%	0.0%		0.0%	4 17.4%	5 21.7%	0.0%	0.0%		0.0%	12	52.2%		23
1986	TV	2	7.7%	0.0%	2	7.7%	0.0%	2 7.7%	7 26.9%	0.0%	1	3.8%	12	46.2%		26
1987	TV		0.0%	0.0%		0.0%		6 40.0%	0.0%	0.0%		0.0%	9	60.0%		15
1988	TV	1	5.6%	0.0%	1	5.6%	0.0%	2 11.1%	4 22.2%	0.0%	2	11.1%	8	44.4%		18
1989	TV	1	5.3%	0.0%		0.0%	0.0%	1 5.3%	2 10.5%	0.0%	2	10.5%	13	68.4%		19
1990	TV	2	18.2%	1 9.1%	1	9.1%	0.0%	0.0%	0.0%	0.0%	1	9.1%	6	54.5%		11
1991	TV	3	30.0%	0.0%	1	10.0%	0.0%	1 10.0%	0.0%	0.0%	1	10.0%	3	30.0%		10
1992	TV	2	12.5%	0.0%	2	12.5%	0.0%	3 18.8%	1 6.3%	0.0%		0.0%	8	50.0%		16
1993	TV	2	7.7%	0.0%	3	11.5%	0.0%	1 3.8%	4 15.4%	0.0%		0.0%	16	61.5%		26
1994	TV	1	4.2%	0.0%	3	12.5%	0.0%	1 4.2%	4 16.7%	1 4.2%	1	4.2%	13	54.2%		24
1995	TV	3	6.1%	0.0%	1	2.0%	0.0%	1 2.0%	5 10.2%	0.0%	1	2.0%	38	77.6%		49
1996	TV	4	8.3%	0.0%	3	6.3%	0.0%		13 27.1%	4 8.3%	0.0%	2	22	45.8%		48
1997	TV	8	21.1%	0.0%	2	5.3%	0.0%	3 7.9%	4 10.5%	0.0%	1	2.6%	20	52.6%		38
1998	TV	5	11.1%	1 2.2%	2	4.4%	0.0%	2 4.4%	10 22.2%	3 6.7%	0.0%	1	21	46.7%		45
1999	TV	5	13.9%	0.0%	3	8.3%	1 2.8%	1 2.8%	2 5.6%	14 38.9%	0.0%		10	27.8%		36
Grand Total		45	9.6%	2 0.4%	24	5.1%	1 0.2%	29 6.2%	77 16.3%	27 5.7%	1	0.2%	21	4.5%	244	51.8%	471

* Percentages represent the number of acquisition deals in proportion to the total number of deals completed in the year

BEST COPY AVAILABLE

Table 3: Acquisition Patterns of the Radio Broadcasting Industry:

		Target sectors																							
year	acquiror	cable		comm equip		film/ video		hardware		publish		radio		service		sound/ audio		phone		TV		Grand Total	
1981	radio	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	50.0%	1	50.0%	2	
1982	radio	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	7	87.5%	0	0.0%	0	0.0%	0	0.0%	1	12.5%	8	
1983	radio	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	10	66.7%	0	0.0%	0	0.0%	2	13.3%	3	20.0%	15	
1984	radio	2	8.0%	0	0.0%	0	0.0%	0	0.0%	1	4.0%	16	64.0%	0	0.0%	0	0.0%	1	4.0%	5	20.0%	25	
1985	radio	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	10	83.3%	0	0.0%	0	0.0%	0	0.0%	2	16.7%	12	
1986	radio	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	16	72.7%	0	0.0%	0	0.0%	0	0.0%	6	27.3%	22	
1987	radio	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	20	83.3%	1	4.2%	0	0.0%	0	0.0%	3	12.5%	24	
1988	radio	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	23	92.0%	0	0.0%	1	4.0%	0	0.0%	1	4.0%	25	
1989	radio	0	0.0%	0	0.0%	1	4.2%	0	0.0%	0	0.0%	18	75.0%	0	0.0%	0	0.0%	0	0.0%	5	20.8%	24	
1990	radio	0	0.0%	1	5.9%	1	5.9%	0	0.0%	0	0.0%	11	64.7%	1	5.9%	0	0.0%	0	0.0%	3	17.6%	17	
1991	radio	1	5.9%	0	0.0%	1	5.9%	0	0.0%	1	5.9%	10	58.8%	0	0.0%	0	0.0%	0	0.0%	4	23.5%	17	
1992	radio	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	13	92.9%	0	0.0%	0	0.0%	0	0.0%	1	7.1%	14	
1993	radio	1	3.4%	0	0.0%	0	0.0%	0	0.0%	1	3.4%	25	86.2%	0	0.0%	0	0.0%	0	0.0%	2	6.9%	29	
1994	radio	1	1.7%	0	0.0%	1	1.7%	0	0.0%	0	0.0%	52	88.1%	0	0.0%	1	1.7%	0	0.0%	4	6.8%	59	
1995	radio	1	1.6%	0	0.0%	1	1.6%	0	0.0%	0	0.0%	51	82.3%	1	1.6%	0	0.0%	0	0.0%	8	12.9%	62	
1996	radio	1	1.0%	0	0.0%	1	1.0%	0	0.0%	0	0.0%	91	89.2%	0	0.0%	1	1.0%	0	0.0%	8	7.8%	102	
1997	radio	2	1.9%	1	1.0%	5	4.9%	0	0.0%	0	0.0%	85	82.5%	1	1.0%	2	1.9%	2	1.9%	5	4.9%	103	
1998	radio	0	0.0%	2	2.3%	0	0.0%	0	0.0%	1	1.2%	67	77.9%	3	3.5%	1	1.2%	3	3.5%	9	10.5%	86	
1999	radio	0	0.0%	0	0.0%	3	5.8%	0	0.0%	1	1.9%	44	84.6%	3	5.8%	0	0.0%	0	0.0%	1	1.9%	52	
Grand Total		9	1.3%	4	0.6%	14	2.0%	0	0.0%	5	0.7%	589	81.5%	10	1.4%	6	0.9%	9	1.3%	72	10.3%	698	

* Percentages represent the number of acquisition deals in proportion to the total number of deals completed in the year.

Table 4: Acquisition Patterns of the Cable TV Industry:

		Target sectors																							
year	acquiror	cable		comm equip		film/ video		hardware		publish		radio		service		sound/ audio		phone		TV		Grand Total	
1981	cable	2	28.6%	1	14.3%	0	0.0%	1	14.3%	1	14.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	28.6%	7	
1982	cable	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	#####	0	0.0%	2	
1983	cable	8	61.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	7.7%	4	30.8%	13	
1984	cable	12	44.4%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	7.4%	0	0.0%	0	0.0%	4	14.8%	9	33.3%	27	
1985	cable	12	92.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	7.7%	13	
1986	cable	20	87.0%	0	0.0%	1	4.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	4.3%	1	4.3%	23	
1987	cable	28	87.5%	0	0.0%	0	0.0%	0	0.0%	1	3.1%	0	0.0%	0	0.0%	0	0.0%	3	9.4%	0	0.0%	32	
1988	cable	50	89.3%	1	1.8%	0	0.0%	0	0.0%	1	1.8%	0	0.0%	0	0.0%	0	0.0%	2	3.6%	2	3.6%	56	
1989	cable	34	87.2%	0	0.0%	1	2.6%	0	0.0%	0	0.0%	1	2.6%	0	0.0%	0	0.0%	0	0.0%	3	7.7%	39	
1990	cable	23	85.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	14.8%	0	0.0%	27	
1991	cable	8	66.7%	0	0.0%	2	16.7%	0	0.0%	1	8.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	8.3%	12	
1992	cable	20	64.5%	1	3.2%	3	9.7%	0	0.0%	1	3.2%	0	0.0%	0	0.0%	0	0.0%	3	9.7%	3	9.7%	31	
1993	cable	16	50.0%	1	3.1%	5	15.6%	0	0.0%	0	0.0%	1	3.1%	1	3.1%	2	6.3%	2	6.3%	4	12.5%	32	
1994	cable	28	73.7%	2	5.3%	1	2.6%	0	0.0%	0	0.0%	0	0.0%	1	2.6%	0	0.0%	3	7.9%	3	7.9%	38	
1995	cable	47	79.7%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	1.7%	4	6.8%	0	0.0%	3	5.1%	4	6.8%	59	
1996	cable	45	84.9%	1	1.9%	1	1.9%	0	0.0%	0	0.0%	2	3.8%	0	0.0%	0	0.0%	4	7.5%	0	0.0%	53	
1997	cable	30	63.8%	3	6.4%	1	2.1%	0	0.0%	1	2.1%	2	4.3%	2	4.3%	1	2.1%	3	6.4%	4	8.5%	47	
1998	cable	44	75.9%	0	0.0%	3	5.2%	1	1.7%	0	0.0%	0	0.0%	3	5.2%	0	0.0%	4	6.9%	3	5.2%	58	
1999	cable	60	67.4%	4	4.5%	5	5.6%	0	0.0%	1	1.1%	1	1.1%	7	7.9%	4	4.5%	3	3.4%	4	4.5%	89	
Grand Total		487	74.0%	14	2.1%	23	3.5%	2	0.3%	7	1.1%	10	1.5%	18	2.7%	7	1.1%	42	6.4%	48	7.3%	658	

* Percentages represent the number of acquisition deals in proportion to the total number of deals completed in the year.

BEST COPY AVAILABLE

Table 5. Acquisition Patterns of the Telephony Industry

		Target sectors																	
year	acquiror	cable		comm equip		film/ video		hardware		publish		radio		service		software		phone		TV		Grand Total
1980	telephone		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	1	#####		0.0%	1
1981	telephone	1	8.3%	1	8.3%		0.0%	2	16.7%		0.0%		0.0%	1	8.3%		0.0%	7	58.3%		0.0%	12
1982	telephone	2	11.1%	3	16.7%		0.0%	1	5.6%		0.0%		0.0%	2	11.1%		0.0%	7	38.9%	3	16.7%	18
1983	telephone	1	3.8%	4	15.4%	1	3.8%	3	11.5%		0.0%		0.0%		0.0%		0.0%	14	53.8%	3	11.5%	26
1984	telephone	1	4.8%		0.0%		0.0%	1	4.8%	1	4.8%	1	4.8%	1	4.8%		0.0%	15	71.4%	1	4.8%	21
1985	telephone	1	7.1%	1	7.1%		0.0%	3	21.4%	1	7.1%		0.0%	1	7.1%		0.0%	7	50.0%		0.0%	14
1986	telephone	1	4.2%	1	4.2%		0.0%	2	8.3%	1	4.2%		0.0%	6	25.0%		0.0%	13	54.2%		0.0%	24
1987	telephone	1	3.1%	2	6.3%	2	6.3%		0.0%		0.0%		0.0%	5	15.6%		0.0%	21	65.6%	1	3.1%	32
1988	telephone	7	12.1%	3	5.2%		0.0%	1	1.7%		0.0%	1	1.7%	7	12.1%		0.0%	37	63.8%	2	3.4%	58
1989	telephone	5	6.9%	2	2.8%		0.0%	2	2.8%	3	4.2%		0.0%	6	8.3%		0.0%	54	75.0%		0.0%	72
1990	telephone	2	3.0%	4	6.1%		0.0%		0.0%		0.0%		0.0%	11	16.7%		0.0%	48	72.7%	1	1.5%	66
1991	telephone	2	2.5%	4	5.1%		0.0%	1	1.3%		0.0%		0.0%	4	5.1%	1	1.3%	67	84.8%		0.0%	79
1992	telephone	1	1.4%	2	2.8%		0.0%	1	1.4%		0.0%		0.0%	10	14.1%		0.0%	57	80.3%		0.0%	71
1993	telephone	4	4.2%	9	9.5%	2	2.1%	2	2.1%	1	1.1%		0.0%	9	9.5%		0.0%	68	71.9%		0.0%	95
1994	telephone	5	3.8%	7	5.3%	2	1.5%	2	1.5%	3	2.3%		0.0%	7	5.3%		0.0%	105	80.2%		0.0%	131
1995	telephone	15	8.1%	11	5.9%	1	0.5%	8	4.3%	3	1.6%	1	0.5%	13	7.0%		0.0%	133	71.9%		0.0%	185
1996	telephone	6	3.8%	7	4.5%		0.0%	3	1.9%	1	0.3%	3	1.9%	29	18.5%	1	0.6%	106	67.5%	1	0.6%	157
1997	telephone	13	7.6%	5	2.9%		0.0%	1	0.6%		0.0%	5	2.9%	33	19.3%		0.0%	113	66.1%	1	0.6%	171
1998	telephone	9	4.5%	15	7.4%	4	2.0%	5	2.5%	1	0.5%		0.0%	48	23.8%		0.0%	120	59.4%		0.0%	202
1999	telephone	11	4.6%	8	3.3%		0.0%	6	2.5%	1	0.4%	3	1.3%	74	30.8%		0.0%	137	57.1%		0.0%	240
Grand Total		88	5.3%	89	5.3%	12	0.7%	44	2.6%	16	1.0%	14	0.8%	267	15.9%	2	0.1%	1130	67.5%	13	0.8%	1675

* Percentages represent the number of acquisition deals in proportion to the total number of deals completed in the year

BEST COPY AVAILABLE

The Relationship Between What Managers Do and How Newsroom Workers Respond in Times of Change

by

George L. Daniels
University of Georgia
Department of Telecommunications

email: gdaniels@mindspring.com

Presented to the Media Management and Economics Division
Association for Education in Journalism and Mass Communication
Annual Conference, Phoenix, AZ, August 9-12, 2000

This project was supported in part by the
Michael J. Faherty Broadcast Management Laboratory
Department of Telecommunications
University of Georgia

Special thanks to Dr. Eric Haley, Associate Dean of the College of Communications,
University of Tennessee-Knoxville for making presentation of this paper possible.

The Relationship Between What Managers Do and How Newsroom Workers Respond in Times of Change

ABSTRACT

A key concern of many newsroom managers is successfully implementing change. Based on a survey of workers at CNN Headline News, where six major changes occurred simultenously in 1998, information about how change relates to long-term goals was, by far, the most valuable predictor of how newsroom workers might respond to change. There was no relationship between an employee's perceived level of communication and how likely an employee is to quit in a time of change.

The Relationship Between What Managers Do and How Newsroom Workers Respond in Times of Change

Scholars have studied the role of managers in the workplace for more than a century. In fact, entire fields of study have evolved from the interest in knowing exactly how managers are able to get things accomplished through other people. While the work of management scholars in general may incorporate some element of unpredictability or unforeseen circumstances, for media management scholars, such elements are crucial to their understanding of those who run the world's media organizations. In the television newsroom, change has always been an integral part of an environment where stories are constantly breaking and changing the very nature of a newscast, sometimes while it is on the air. However, in the 1990s, the number of planned change escalated as new technologies were introduced, competition for news audiences increased and the pace of regulatory changes accelerated.

This paper adds a new perspective to the body of management research which focuses on what managers do in a period of intense change. Moreover, we explore the relationship between managers' actions and the responses of their employees. This relationship is particularly important for newsroom managers who have the ultimate responsibility of delivering a competitive news product in the midst of a period of intense change. A key concern of many newsroom managers is successfully implementing change while minimizing turmoil and turnover. A better understanding of how their employees react may assist them in addressing this concern.

LITERATURE REVIEW

Both cognitive and organizational psychologists have studied how individuals respond to change. Based on a three-year program of experimentation, Bruner came up with the idea that human beings operate on a principle of concept containment. Virtually all

cognitive activity involves and is dependent on the process of categorizing (Bruner, Goodnow, & Austin, 1956, p.246). In her counseling textbook, *People and Change*, Flanagan explains how human beings by their very nature enter a "world of habits" as we mature to the point where everyday behaviors like dressing, eating and chatting become, in her words, overlearned (Flanagan, 1990, p. 15) This overlearning manifests itself in habits which we develop for economy of mental and physical energy (Flanagan, 1990, p. 16). These habits are diametrically opposed to change. These studies support the belief that human beings are creatures of habit, avoiding change at all cost.

Moving from individuals to groups of individuals, Lewin's experiments in the 1940s included an explanation of how a successful change is a three-step process: unfreezing, moving, and re-freezing. In the *unfreezing* stage, the focus is on reducing those forces trying to maintain the status quo. Once this first stage is complete, the *moving* stage begins wherein the goal is to shift the behavior to a new level. Finally, the *re-freezing* stage is under way when there is stabilization at a new state of equilibrium between forces wanting to maintain the present state and those wanting to change (Lewin, 1951, p. 228). Lewin explained how individual behavior can be affected by so-called "group values." As long as group values are unchanged, the individual will resist change. If the group changes, the resistance due to the relationship between individual and group is eliminated (Lewin, 1951, p. 228)

Such resistance has been the focus of other researchers.Hutton showed how those making a change lead each other from "the old ways" to "the new ways" using an illustration that showed a burning house representing "the old ways" while a house not burning represented "the new ways" (Hutton, 1994). He suggested "fear of the unknown" was the most powerful factor in why individuals tend to want to maintain the status quo in times of change.

Winum et al. said that "most attempts to implement change in organizations are less successful than intended because principles and knowledge about the psychology of change

are violated or ignored"(Winum, Ryterband, & Stephenson, 1997, p. 6). Arguing that change is a process of the cognitive-analytic, emotional-motivational, and behavioral arenas, they developed a Psychologically Informed Change Management Model. It was offered as a user-friendly and practical approach for business organizations. The Psychologically Informed Change Management Model was essentially a matrix with three arenas for change: mindset (rational-analytic), motivation (emotional-intuitive dynamic) and behavior (capability) and three stages of change management: defining the challenge, working through the change, and attaining and sustaining improvement.

Several researchers have conducted studies on the role of managers during a period of change. Nadler's (1981) action steps for managing the transition in a period of change began with developing and communicating a clear image of the future (p.202). How much do workers know about a change prior to it happening ? How much notice were they given ? Such questions relate directly to the mechanism for communication between those implementing the changes and those announcing them. Cummings and Worley (1993) talk about the degree of member learning as a component of organizational development. This is the level at which organizational members are actively involved in learning first-hand in preparing for change (Cummings & Worley, 1993). In writing what's billed as "the single most insightful study" on organizational change, Beckhard and Harris (1987) in *Organizational Transitions* spoke of the importance of defining the future state of a company. When the vision of the company is clear to workers and change would be required to make that vision a reality, they said "a reduction in personnel and other costs would come about as a corollary change" (p.87). Beckhard and Harris' work followed the classic organizational change studies of Lawrence and Lorsch (1967) who interviewed 30 to 50 upper-level and middle managers during a period of intense change in the plastics industry. They found when personnel in a particular department share attitudes and interests that focus clearly on departmental goals, they will be more effective (p. 43).

HYPOTHESES

At least at the psychological level, television newsroom workers are human beings just like employees in other professions. Therefore, the research by cognitive and organizational psychologists can be used to suggest possible relationships between the actions of newsroom management and responses of television newsroom employees.

Cummings and Worley's studies on organizational development found that the more member learning or communication that goes on, the less likely workers are to give the knee-jerk "flight" response when they learn of a possible change. Therefore:

> H1: The higher the level of perceived communication about a planned newsroom change, the less likely a newsroom worker is to quit when the change is announced.

Nadler (1981) said participation was an action step in motivating workers to accept change. This idea comes from research that shows participation in change tends to reduce resistance and build ownership on the part of workers in whatever is changing (p. 201). Hutton (1994) advised managers implementing change to anticipate the "no one asked my opinion" response from frontline workers. In such a response, an employee or employees reject new ideas or changes because they expect the changes to be imposed on them. This method of implementation change is more threatening. He further suggests that managers ought to "let people plan their own journey" to change (p. 184). Along those same lines, Therefore:

> H2: The greater the level of input a newsroom worker perceives he or she has had on a planned change, the more positive his or her attitude toward the company.

Lawrence and Lorsch (1967) found that personnel who have clear time horizons associated with departmental goals will be more effective (p. 43). Based on that finding plus Beckhard and Harris' (1987) research on the importance of a clearly defined future state of the company, we predict:

H3: The greater a newsroom's worker's ability to connect a planned change with a long-term newsroom goal, the more positive his or her attitude toward management

THE EXEMPLAR

While one would be hard pressed to find a single television newsroom that is not undergoing some type of change, finding two newsrooms at exactly the same point in the process of exactly the same change is nearly impossible. Such an occurrence is also impractical given the high level of change and the timeline for academic research. For practical purposes, it was better to examine change in a single newsroom setting. Moreover, a particular newsroom where multiple changes were occurring would provide additional comparative elements for this study. Such was the case at CNN Headline News.

In 1997, CNN Headline News management decided to take the Atlanta-based cable network into the age of digitization, essentially pre-recording newscasts in digital form for playback throughout the day and night. This drastically reduced costs and dramatically changed work processes. For example, a news writer or producer who under the traditional system of live newscasts every half-hour was under pressure to finish a story so it could make air on time. Under the system of digitization, this writer or producer is more concerned about having the story ready to record so that it fits into a computer system for playback (like a pre-recorded commercial). The job of the news anchor who simply went on the air every half-hour to read entire news blocks or newscasts live on-the-air (like most television stations) now spends his or her day recording intros to news reports and reading news stories on tape. The work processes of the Headline News operation no longer culiminate in the studio but on a computer where pre-recorded segments are assembled and replayed.

As an additional cost-cutting measure, network officials eliminated 70 positions. Thirty of those positions were cut through attrition and transfers. The other 40 people were laid off. For those other workers left behind, not only were they dealing with the loss of

their co-workers, some of whom had been with the network for more than 10 years, but also with a whole new way of doing their jobs, a totally new computer system, and a brand new studio and newsroom in which to use those computers. The computer system automated many of the traditional newscast production tasks such as typing in fonts and preparing on-air graphics.

All these changes occurred within a six-month time period. Officials at CNN Headline News planned to keep in mind lessons learned from the 1996 introduction of non-linear editing, when it tried unsuccessfully to cross-train all its staff in all areas of news from editing and technical directing to writing and producing. In the words of a former automation manager, the cross-training idea was "a complete failure" that pushed staff morale to an all-time low. The process of editing videotape on a computer screen and manipulating stories using a mouse rather than a physical videotape spurred many to leave the network in what has been termed a "mass exodus"(Losure, 1998, p. 88). Given the admitted management mistakes of the past and six major changes under way in 1998, the CNN Headline News operation was fertile ground for measuring employee reactions to how all the changes were introduced. The six major changes were:

1. New 4-day work week schedule;
2. Move of the CNN Headline Newsroom
3. Change from live format to taped (digitized) broadcasts
4. New work process as a result of digitization
5. Change from BASYS to AvidNews computer system
6. Layoffs

METHOD

A questionnaire titled "Dealing with Change in the Television Newsroom" which contained both open-ended and close-ended questions was administered on-site over three days at CNN Headline News. Most of the questions were developed based on findings generated from indepth interviews with CNN managers, technical and automation staff. Rather than draw a representative sample such as might be used with a larger population, a census was conducted of the CNN Headline News workforce, which at the time included

about 90 employees. Because the researcher was on-site to administer the instrument in person, there was an opportunity to canvass workers at their work stations, in control rooms, breakrooms and other common work areas to request they complete the survey. This increased the likelihood a worker would complete the instrument. A total of 72 instruments was distributed. Of those 72 distributed, only 47 were completed and returned. That is a response rate of 52 percent.

Several terms used in the above hypotheses should be operationally defined. *Perceived Level of input* as well as *perceived level of communication* were measured using a series of general responses to items in a questionnaire. An example of a statement used to measure level of input was "CNN Headline News solicits employee input on major decisions that will affect them." To gauge the perceived level of communication, respondents were asked to respond to such statements as " Thanks to communication from management, I am fully aware of how my job will be altered by the changes at CNN Headline News ovre the next few months." In the face of change, some employees are more likely than to others to resign in the face of those changes. It should be clearly stated that at some point in time, all employees will leave their job either by force or by individual choice. Therefore, *likelihood to quit* simply measured an employee's personal view of the likelihood that he or she will leave his or her job in the near future.

Lickert responses to a series of statements was used to measure one's *understanding of that connection between change and organization's long-range goals* . An example of a statement used to test this variable was "The changes taking place at CNN Headline News are part of the network's well thought-out plans for the future." Finally, while the direction of the relationship is not clear, there does appear to be some link between one's *attitude toward management* in general and one's view of changes announced by those in the management structure. For that reason, Lickert scale responses to three positive and negative statements on how management had handled various worker tasks were averaged to generate a measurement of one's *attitude toward management*.. A

trio of Lickert scale responses was also used to measure respondents' attitude *toward the company*.

It should be noted that the dependent variables in this study could easily be independent variables in another study. In this particular instance, the focus was on the actions of newsroom employees based on what managers do during a period of intense change. Those employee actions may include changing one's opinion of where he or she works or altering opinions of his or her managers. Those actions may also include leaving the work situation permanently (quitting). Finally, this study does not suggest causality in any of the relationships hypothesized. Rather, based on the literature on how people respond to change, we suspected there may be some link or statistically significant relationship between certain managerial actions and employee actions. In other words, just because an employee quits, we cannot say for sure that it was the lack of communication on planned changes that resulted in the resignation.

FINDINGS

H1: The higher the perceived level of communication about a planned newsroom change, the less likely a newsroom worker is to quit when the change is announced.

Hypothesis 1 is not supported by the data. As Table 1 shows, virtually no relationship (-.026) exists between level of perceived communication and likelihood to quit. Perceived level of communication seems to play a slight role in how employees feel about management and the company for which they work. The more the management communicates with them, the more positive they tend to feel about management and their company. The positive correlation of .114 and .164, between level communication and attitude about management and attitude about the company, respectively, are both weak relationships.

There was a statistically significant relationship of -.251 between the level of communication between management and employees and employees' job satisfaction.

Despite management's best efforts to communicate with employees in an environment of change, that communication does not increase one's sense of job satisfaction. In fact, the opposite is true. The more employees hear about change, the more dissatisfied they are about their job.

Still, managers who take their efforts to communicate about a change further by allowing employees input on how those changes will be executed are not likely to make those employees more satisfied about their jobs. A negative, though not statistically significant, correlation of -.127 exists between job satisfaction and level of input.

H2: The greater the level of input a newsroom worker perceives he or she has had in a planned change, the more positive his or her attitude about the company.

This hypothesis is not supported by the data, although the data trended in the predicted direction. However, the .116 correlation (Table 1) between one's level of input and attitude toward the company was not significant. Likewise, there appears to be no relationship between one's attitude toward management and how much input employees felt they had on planned changes. However, a weak but non-significant relationship was found between input and attitude toward the company. What this finding provides is some indication that giving employees input on changes does have some bearing, however limited it may be, on their attitude about where they work or who's in charge.

H3: The greater a newsroom worker's ability to connect a planned change with a long-term newsroom goal, the more positive his or her attitude about management.

The data do support this hypothesis. Table 2 shows a strong, statistically significant correlation of .369 exists between how much employees are able to connect a planned change to the long-term goals of the company and their attitude about management. This suggests that the more an employee understands why a change is being made, the more positive he or she is likely to feel about the persons making the change. It was no

surprise to find statistically significant relationships between attitude about the company and attitude about management and one's sense of job security. When one feels good about his or her bosses and workplace, he or she is bound to have a high level of perceived job security.

DISCUSSION AND IMPLICATIONS

Of the three managerial factors tested in this study: information about how change relates to long-term goals was, by far, the most valuable predictor of how newsroom workers might respond to change. According to the data, one's likelihood to quit, sense of security, attitude about company, attitude about management and attitude about work processes were all positively related to information on how changes relate to long-term goals. For managers, this may be a very important cue on how to communicate change. The more they show how a planned change fits into the long-term goals of the company, the more a manager increases the likelihood an employee will stay in a time of change, increases their sense of personal job security and improves their attitudes about the management and company overall. And, if as that were not enough, talking about how proposed change relates to long-term goals of the company is also related to how positive a worker feels about changing work processes.

This is consistent with findings in earlier studies that showed when personnel in a particular department share attitudes and interests that focus clearly on departmental goals and have time horizons consistent with their task, they will be more effective (Lawrence & Lorsch, 1967, p. 43). One's positive attitude is not necessarily the same as his or her effectiveness. However, they are both indications of the positive direction employees tend to move in when they understand how changes are part of the long-term goals of where they work.

Placed in the context of journalism and the broadcast newsroom, this finding on understanding of how changes relate to long-term goals is further explained by the concern

expressed by respondents about the "shift away from quality air product to profits" as noted in the open-ended question," What Do you Dislike Most About the Changes?" (Table 3) Earlier research of journalists found they selected a career because of the larger, long-term goal of "making an impact." In their 1992 interviews, Weaver and Wilhoit (1996) found a television journalist expressing this idealism in the comment "I really believe that stories could make a real difference in people's lives" (p.53). Since journalists are known to have to big-picture concerns about making an impact and a difference, it is reasonable to expect that if changes in their work environment are explained in the context of those larger, long-term goals, it would cause them to feel more positive about where and for whom they work. On the other hand, if the goal is not one of making an impact, but rather a more economic one, explaining how changes relate to long-term goals may be less of a factor. This depends on two things: 1)what the employee perceives as the long-term goals and 2) whether the employee's attitude is one of willingness to accept that goal.

As Table 3 also shows, the network's "non-live format" was the third most common dislike about the changes. CNN Headline News prior to 1998 was the only network of its kind to provide full 30-minute live television newscasts 24 hours-a-day. The live element was part of the long-term goals and thus, not going live caused significant concern among those surveyed. In this scenario, the long-term goal was not the noble type "making a difference" goal but a more bottom-line, economic-driven one. Regardless of what the long-term goals are – including them in how the changes are explained is what the data show may elicit more of a positive attitude on the part of employees.

While intuitively, communicating about change might seem very relative to how those listening perceive the changes, the data in this study do not support that. Somewhat puzzling was the negative relationship between communication and job satisfaction. In other words, the higher one's perceived level of communication, the lower his or her job satisfaction. That can mean either one of two things: managers hoping to help workers find satisfaction in their jobs are communicating the wrong information or they are not

communicating enough. It could mean journalists have written enough stories about this type of communication to be jaded and cynical about it.

If one were to look to the literature for an explanation about the less valuable role of communication, an earlier study by Miller and Monge (1985) may provide it. Their field experiment of employees anticipating a move to a new environment to test the social information processing theory of job attitudes revealed that negative information may be perceived more negatively than no information. In that setting, employee information did not have an overriding impact on one's statement of job attitudes (p. 381-382). Lippitt et. al (1958) said "The most significant emergent force toward change is that which arises from the acceptance and approval of the change effort" (p. 242). They explained how resistance or blockage to change can result from the use of unsuitable methods, which may be evidence of a lack of skill in communicating or demonstrating change.

Perhaps the methods used to communicate change are the issue. In an effort to gather more concrete responses on the role of communication in a time of planned change, respondents were asked for their open-ended responses to the question "the best way that management could communicate change to employee." The largest percentage of respondents (35.2%) said meetings were the best way to communicate change. As Table 4 shows, "Being honest" was another frequently listed (29.6%) way respondents felt managers could communicate change. Other responses that were given to this question by a large percentage of participants-- use of computer messages and making sure employees have input in the changes.

In the end, even though CNN Headline News management discussed all the planned changes through town hall-type meetings and one-on-one sessions, the mode of communication which the largest percentage indicated of survey respondents indicated was the best way to communicate change, those employees were not any more satisfied about their jobs. There was no clear explanation for this finding. Whereas previous research has shown participation or input in the change was a major factor in reducing resistance to the

change by building ownership in the change on the part of the employees (Nadler, 1981, p. 201), this study provides some support for input influencing one's attitude about the managers and company.

Given the bottomline, hectic environment of the television newsroom particularly, few managers have time to spend plowing through research to come up with a formula for making a major change when it is necessary. Many learn how to manage change as they go along. Based on what didn't work the previous time, they know what to do or not to do when the next change has to be made. What this study begins to do is assemble the organizational change research and examine it in light of what is known about journalists. Just like Beckhard and Harris did in developing a easy-to-read booklet aimed at helping business mangers in general understand the change based on the academic research (Beckhard & Harris, 1987, p. vii), a similar effort should be undertaken for media managers using not only traditional media management research on change, but also psychological research and findings from previous studies of journalists.

In the more immediate future, newsroom managers can take some comfort in knowing that based on responses of the CNN Headline News employees, meetings are an effective way to communicate change. Just as important, however, is being honest and open about the changes that are to come. Thirdly, giving a clear explanation of how changes relate to long-term goals may at least minimize negative feelings on the part of workers when change is necessary. For managers utilizing a change strategy that incorporates some element of employee input, this study may or may not be helpful

For the media management scholar, this study provides a starting point for future research on newsrooms and change. Future studies might compare what media managers in other media workplaces do to get a reaction from workers in other media workplaces. Only then might we be able to see how the findings in this study relate to other non-newsroom workplaces. Almost all of the psychological research used as a framework from this study came from other types of workplaces. This study suggests the need for some

type of psychological personnel profile of newsroom workers. Such a profile might help provide some understanding of why workers in this study responded in the way they did to issues of change in the newsroom.

Additionally, there is room for broader research of broadcast journalists and journalists in general toward some type of concept or construct of journalists' attitudes. The work of Johnstone, Slawski, and Bowman (1976), Becker et al. (1997) and the 1986 and 1996 studies by Weaver and Wilhoit have stood as the only broad-based studies of journalists. Their findings over the years could be examined for their common themes and applied to some business management theories in an effort to generate a construct of journalists' attitudes. The findings in this study provide a starting point for developing such a construct.

CONCLUSION

This paper sought to identify any links between what newsroom managers do and how newsroom workers respond in times of change. While having meetings with workers where managers are open and honest was the preferred method of communicating change, such communication will not necessarily make those workers like where they work. There is a definite link between managers who explain how changes fit into the long-term goals of the newsroom and how their newsroom employees view their bosses and where they work. With these findings in mind, managers should be better equipped to strategically deal with the ever-changing environment of the television newsroom. For those focused on studying how managers operate, this study may be the spark for a new area of research on the actions of managers and the reactions of workers.

REFERENCES

Becker, L. B., Kosicki, G. M., Porter, L., & Watson, D. (1997). *Annual Survey of Journalism and Mass Communication Graduates* . Athens, GA: University of Georgia.

Beckhard, R., & Harris, R. T. (1987). *Organizational Transitions: Managing Complex Change*. (Second ed.). Reading, MA.

Bruner, J. S., Goodnow, J. J., & Austin, G. A. (1956). *A Study of Thinking*. New York: John Wiley & Sons, Inc.

Cummings, T. G., & Worley, C. G. (1993). *Organization Development and Change*. (Fifth ed.). New York: West Publishing Company.

Flanagan, C. (1990). *People and Change: An Introduction to Counseling and Stress Management*. Hillsdale, NJ: Erlbaum Associates.

Hutton, D. W. (1994). *The Change Agents' Handbook: A Survival Guide for Quality Improvement Champions*. Milwaukee, WI: ASQC Quality Press.

Johnstone, J. W. C., Slawski, E. J., & Bowman, W. W. (1976). *The News People: A Sociological Portrait of American Journalists and Their Work*. Urbana, IL: University of Illinois Press.

Lawrence, P., & Lorsch, J. (1967). Organization and Environment. *Harvard University Graduate School of Business Administration Division of Research*.

Lewin, K. (1951). *Field Theory in Social Science*. New York: Harper and Row.

Lippitt, R., Watson, J., & Westley, B. (1958). *The Dynamics of Planned Change*. New York: Harcourt, Brace and World.

Losure, B. (1998). *Five Seconds to Air: Broadcast Journalism Behind the Scenes*. Franklin, TN: Hillsboro Press.

Miller, K.M., & Monge, P. R. (1985). Social Information and Employee Anxiety About Organizational Change. *Human Communication Research, 11*(3), 365-386.

Nadler, D. A. (1981). Managing Organizational Change: An Integrative Perspective. *Journal of Applied Behavioral Science, 17*(2), 191-211.

Weaver, D. H., & Wilhoit, G. C. (1986). *The American Journalist: A Portrait of U.S. News People and Their Work*. (Second ed.). Bloomington, IN: Indiana University Press.

Wilhoit, D.H., & Wilhoit, G. C. (1996). *The American Journalist in the 1990s: U.S. News People at the End of an Era*. Mahway, New Jersey: Lawrence Erlbaum Associates.

Winum, P., Ryterband, E., & Stephenson, P. (1997). Helping Organizations Change: A Model for Guiding Consultation. *Consulting Psychology Journal: Practice and Research, 49*(1), 6-16.

TABLES

Table 1

Intercorrelations Between Management Factors and Employee Attitudes

	Input	Communication
	Respondents(n=47)	
1. Attitude about management	.006	.114
2. Attitude about company	.116	.164
3. Sense of job security	.044	-.034
4. Job satisfaction	-.127	-.251*
5. Likelihood to quit	-.097	-.026

*p < .05

Table 2

Intercorrelations Between Employee Attitudes toward Company and Ability to Connect Changes with Long-term Goals

	Connect Changes to Long-term goals	Sense of Job Security
	Respondents(n=47)	
1. Attitude about company	.482**	.595**
2. Attitude about management	.369**	.293**

*p < .05 **p< .01

Table 3

What You Dislike Most About the Changes ?

Opinion	Number of responses	Percent
Management Lack of Loyalty to Employees	21	30.9
Shift Focus from Air Quality to Profits	20	29.4
Non-live Newscast	13	19.1
Unreliable Technology	11	16.2
Lack of Compensation Change	3	4.4
Total	44	100

Table 4

Best Way for Management to Communicate Changes

Opinion	Number of responses	Percent
Meetings and Talks	19	35.2
Be Honest and Upfront	16	29.6
Computers/Computer Messages	6	11.1
More Accountability, Take Criticism	5	9.3
Written Memos, Surveys, Notices	5	9.3
A Raise, No Computer Notices	3	5.6
Total	54	100.0

Using Audience Turnover to Reveal the "Double Jeopardy" Effect In Television Daypart Ratings Performance.

By

Walter S. McDowell Ph.D.

and

Steven Dick Ph.D.

Southern Illinois University at Carbondale

College of Mass Communication and Media Arts

Carbondale, IL 62901

618 - 536 - 7555

Mcdowell@siu.edu

Sdick@siu.edu

Abstract

Using Audience Turnover to Reveal the "Double Jeopardy" Effect In Television Daypart Ratings Performance

Scores of conventional consumer goods studies have revealed that successful brands exhibit disproportionately greater consumer loyalty in terms of repeat purchases than less successful brands do. This phenomenon places struggling brands in a kind of "double jeopardy" posture, where they attract not only fewer customers, but also fewer loyalists. Studies of prime time television audience behavior in the 1980s found a similar double jeopardy effect.

The primary purpose of this study was to update these earlier findings by using an improved methodology that included (a) more dayparts, (b) a more comprehensive ratings database and (c) a different operationalization of audience loyalty, namely *turnover*. Using average quarter hour and cume ratings, a multi-daypart analysis of over 100 Nielsen February "sweep" markets confirmed the double jeopardy phenomenon.

Using Audience Turnover to Reveal the "Double Jeopardy" Effect in Television Daypart Ratings Performance

By
Walter S. McDowell Ph.D.
and
Steven Dick Ph.D.
Southern Illinois University at Carbondale
College of Mass Communication and Media Arts
Carbondale, IL 62901
618 - 536 - 7555
Mcdowell@siu.edu
Sdick@siu.edu

It is no secret among marketing professionals that in addition to winning the hearts and minds of new customers, the nurturing of repeat-customers is, at least, equally important. A brand's market share is driven by two consumer behavior components (a) the number of individuals who buy a particular brand and (b) how often these individuals buy it. For most mature consumer brands, cultivating repeat business is essential for maintaining market share (Lehmann & Winer, 1994).

Myriad studies dating back to the 1960s have confirmed that the relationship between market share and consumer loyalty is disproportionate in that market leaders tend to demonstrate greater loyalty (repeat business) than less successful brands. The notion of a *small but loyal* customer base has proven to be extremely rare in retail consumer goods. Instead, typical consumer behavior reveals a "Double Jeopardy" effect where a brand earning a small market share will have not only fewer

customers, but the these few customers will not be particularly loyal. Conversely, highly successful brands garner more individual customers and disproportionately greater loyalty in terms of repeat purchases.

While some studies on television double jeopardy already exist, this study is unique in several ways. First, the researchers introduce a different operationalization of audience loyalty, namely audience turnover (Cume divided by Average quarter hour). Second, unlike prior studies that used Nieslen national metered ratings, this study uses a sample of over 100 local sweep markets (Nielsen station Index reports). This methodology assesses cumulatively over 50,000 in-tab diaries as opposed to only 5000 national people Meters, thus enhancing the precision of our analysis. Additionally, this study goes beyond prime time programming to include three other dayparts.

Aside from the above methodological rationales for conducting a new double jeopardy study, there is the issue of history. Webster and Wang (1992) published the last published academic study of this type over nine years ago at which time they and claimed that double jeopardy effects were "non-existent."

Literature Review

The relationship between a brand's share of market and the purchase loyalty of its customers has been a topic of concern by retail

business people and market researchers for over three decades. Among the consistent findings has been a so-called "Double Jeopardy" effect coined originally by McPhee (1963).

In essence, this phenomenon depicts the plight of less popular consumer brands in that they experience disproportionately less loyalty (repeat purchases) among the few customers who do buy the product or service. For over twenty years this consumer behavior has been observed across dozens of product categories in several countries, including the United Stares, Great Britain and Japan. In particular, Ehrenberg (1988) and Ehrenberg & Goodhart (1978) found consistent patterns of the double jeopardy effect in over 30 branded consumer goods categories.

The underlying explanatory theory for this phenomenon is that double jeopardy will arise whenever competitive consumer brands differ in their popularity (e.g., share of market). Presuming all competing brands are of equal merit in terms of consumer satisfaction, the more familiar brand will evoke more positive evaluations and encourage brand loyalty expressed as repeat purchases. For instance, suppose two competing restaurants are of comparable merit but one is far better known than the other is. When looking at repeat purchases or asked to mention their favorite restaurant, customers who are familiar only with the popular restaurant will give no recognition the more obscure restaurant. On the other hand, a customer who is aware of the more obscure restaurant is in

all likelihood familiar with the more popular establishment. Presuming both restaurants are of equal merit, the laws of probability imply that customers will "split their vote" between the two establishments in terms of patronizing each restaurant and declaring favorites. Ehrenberg, Goodhart & Barwise (1990) warn that in order for a more obscure brand to increase sales it must not only make itself better known, but also deserve being as well regarded as the more popular brands.

This type of disparate behavior has been revealed also within the domain of television viewing by Barwise (1986). Examining data from Nielsen's national sample, the researcher found that high rated prime time series generated greater repeat viewing than lower rated series. In an effort to understand the relationship of liking and viewing television series, Barwise and Ehrenberg (1987) used a combination of telephone and mailed questionnaires to solicit information from several hundred households in Cincinnati, Ohio. Questionnaires measured the claimed frequency of viewing of twenty TV program series. Additionally, each survey contained several liking measures. The results provided a consistent picture of how the liking of TV programs relates to viewing habits. More specifically, the data revealed that (a) how much an individual likes a particular series correlates with how often he or she sees it and (b) less popular series were viewed not only by fewer people but *less frequently* than popular series, thus supporting a double jeopardy

type of "consumer" choice behavior. Barwise and Ehrenberg (1988) compared prime time share and *time spent watching* and found a similar double jeopardy effect. They concluded that, unlike radio, a television network that reaches a small segment of the audience is viewed by that audience only sparingly.

Although repeat purchases is a common operational definition for consumer loyalty in the retail consumer goods field, broadcasters often analyze audience behavior using different statistical tools. In addition to the well-known national "People Meter" ratings, Nielsen provides local market ratings to over 200 communities. Using a multi-stage clustering sampling technique, all markets experience the month-long, diary-driven "sweeps" at least four times a year (November, February, May and, July). In addition to the sweeps, several large markets are measured using metered "overnight" ratings similar to the national metered ratings.

The fundamental units of measure used in almost all TV ratings-based research are households (000), rating points and shares points. While households are expressed as whole numbers, rating and share points are percentages. A rating expresses the size of a program's audience as a percentage of the total population. A share expresses the same audience, but as a percentage of the households (or persons) using television (HUTs or PUTs). Age and gender demographics can also be

translated into rating and share points. All of the above measures are based on *average quarter hour (AQH)* estimates (Nielsen Methods, 1999).

Webster and Wang (1992) used Nielsen ratings data to investigate repeat viewing of individual programs. While unable to acquire direct audience data on repeat viewing, the researchers assumed that the percentage of households watching some number of telecasts is evenly distributed over the number of times within a four-week sweep period that the program is actually aired. Using an algebraic formula, repeat viewing was calculated for dozens of programs throughout several dayparts. Admitting that the distribution of repeat viewing was "assumed rather than actually observed", the researchers found no convincing evidence of a double jeopardy effect. It should be noted that their definition of *loyalty* focused on audiences returning to a specific program week after week (or day after day).

An alternative conceptualization of audience loyalty is the extent in which an audience member remains with one channel over time (Goodhart, Ehrenberg & Collins, 1987). Using ratings data, this phenomenon can be revealed through an analysis of (a) the average number of viewers at any point in time and (b) the total number of individual viewers who watched at least once over the designated time period. This analysis can be accomplished by introducing an audience statistic that is common in radio but rarely used in television - *cume*

audiences. (Arbitron Methods, 1998, Nielsen methods, 1999). Cume is shorthand for cumulative and signifies the size of the total unduplicated audience for a station over a specific period of time (usually one week). For example, from 9:00 AM to Noon, Monday through Friday, a station may attract an *average quarter hour* audience of 10,000 households. However, by the end of a typical week, this same daypart may have earned a *cume* audience of 30,000 households. These data suggest that the station's total audience for a typical week consists of viewers who do not necessarily watch all five days but rather "come and go" over different days of the week. A viewer may not be always available to watch TV during this time or perhaps the viewer chooses to watch programming on a competing channel (Webster & Lichty, 2000).

For radio broadcasters, the above functional relationship between AQH audiences and cume audiences over time has served as an indicator of *audience loyalty*. More specifically, the formula of cume divided by AQH has been named *audience turnover*. The presumption is that a low turnover index is an indicator of high audience loyalty or, using brand marketing jargon, high repeat *buying*. Conversely, a high turnover index provides circumstantial evidence of disloyalty (Webster & Lichty, 2000).

Unlike most radio programming formats, where listeners can tune in almost any time without losing the continuity of the program content, most television programs have a strict half hour or one-hour story line that is

awkward to join in progress once the program has begun. Therefore, individual television programs rarely exhibit substantial cume audiences. Instead, a station's cumulative audiences are derived over long, multi-hour *dayparts* that embrace usually several programs. The ability to retain viewers over time is well documented in the literature addressing audience *inheritance effects*. Ratings studies report time and again the powerful influence of lead-in programming where the best predictor of a program's rating will be the rating of the program that immediately precedes it (Cooper, 1996). Eastman and Ferguson (1997) assert that in addition to developing popular program content, broadcasters have found that proper *lead-in scheduling* can also be an important factor in attracting audiences.

As we approach an era of "media rich" environments where audiences will have almost limitless choice, the number of channels actually viewed will not keep pace. Nielsen (1999) reports that in recent years, as the number of available channels has increased for American households, the number of channels actually viewed has remain relatively level at around a dozen. Therefore, the first objective for content providers is to join this limited array of channels or "channel repertoire." Programmers are becoming ever more concerned with maintaining audience flow and reinforcing overall brand continuity (McDowell & Batten, 1999).

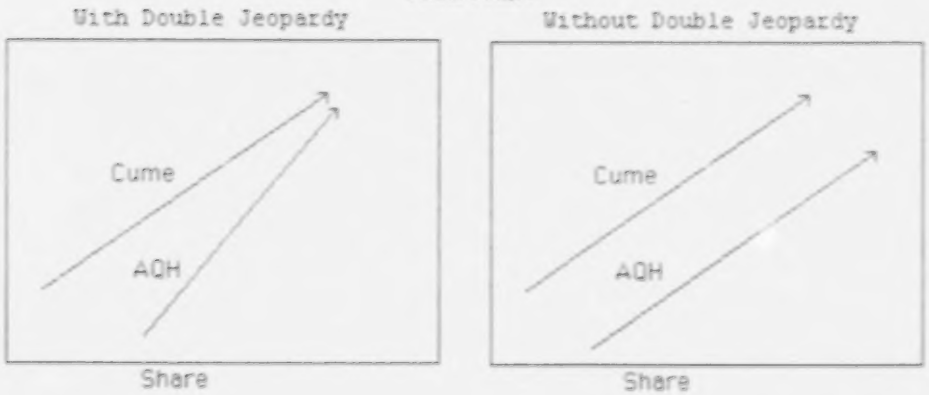
This phenomenon of "inheriting" or carrying over audiences from one program to another on the same channel contributes to measures of station *daypart loyalty*. Unlike Webster and Wang (1992), who applied a contrived formula to guess repeat viewing of individual programs, the researchers involved in this paper advocate the use of *daypart audience turnover* as a better operationalization for loyalty. Comparing a station's daypart audience share with its audience turnover would reveal any double jeopardy effects.

From a purely mathematical perspective, we can see an obvious connection between share and turnover. The formula for audience share is AQH divided by HUT. The formula for turnover is cume divided by AQH. If AQH audiences increase, share will go up and turnover will go down (presuming HUT and cume remain constant).

If increasing a station's share of audience were simply a matter of attracting *more viewers*, one would expect that turnover ratios would remain constant (cume and AQH would increase in the same proportion). However, the Double Jeopardy phenomenon implies that as shares increase this turnover ratio or index will change dramatically. That is, as audience share increases, cume and AQH values increase simultaneously *but at different rates*. As the disparity between cume and AQH values diminish, audience turnover declines (i.e. high loyalty generates low turnover).

Additionally, logic dictates that because share is mathematically dependent on AQH (and not cume), lower turnover ratios generated by higher shares must be the result of AQH going up and not cume going down. Returning to our prior definitions, we know that while cume deals exclusively with individual audience members, AQH measures do not discriminate between duplicated and nonduplicated audiences. One could surmise that AQH is better suited to detect "repeat purchasing." This being the case, high shares corresponding to low turnover suggests that as a station attracts more individual viewers (cume), these added viewers also tend to watch this station more frequently (AQH) than they watch competing channels. This enhanced repeat viewing cause AQH numbers to accelerate and "catch up" to the station's rising cume audience, thereby lowering its calculated turnover index (See Figure One).

Figure One
Double Jeopardy
And AQH



Of course, a broadcaster can request from Arbitron or Nielsen a detailed statistical breakout of audience behavior patterns but turnover data, although not as precise, can be calculated quickly and inexpensively from standard market reports. Cume and turnover information, while used regularly among radio executives, is seldom used among television practitioners. Fortunately, Nielsen does offer household cume data for several weekly dayparts.

While not disputing the basic results of the double jeopardy studies conducted by other researchers, the authors of this paper believed that a modified replication of prior work could yield even more insight. The following modifications were made. First, instead of using repeat viewing or time spent watching as an operationalization of "loyalty", the authors advocated *audience turnover* as a variable that should reveal the same double jeopardy effect. Secondly, a systematic accumulation of ratings data across dozens of individual sweep markets and across several dayparts would offer more external validity and statistical precision than working with Nielsen's single-sample national base for prime time ratings.

Methodology

This study was designed to test for a double jeopardy effect for television using operationalizations, sample databases and dayparts than

have been explored in prior studies. The literature review leads us to a simple Hypothesis.

H1: There is an inverse relationship between turnover ratio and share.
H0 (Null): There is no relationship between turnover ratio and share.

Considering earlier studies, we looked at the following research question.

RQ1: Is turnover ratio affected by daypart?

Audience loyalty was operationalized by introducing turnover ratio to the ratings analysis.

> Turnover ratio is computed as:
> Turnover = Cume HH / AQH HH
> where:
> Cume HH = Cume households for the time period.
> AQH HH = Average quarter hour households for the time period.
> Share, Cume and AQH are as reported in the Nielsen rating book.

The researchers acquired the local ratings books (*Nielsen Station Index: Viewers in Profile*) from 134 random markets for one Nielsen sweep period (February 1998). The needed data were found in the Daypart Summary section located in the front of the book.

The goal of this study is was to look at a station's overall turnover ratio throughout the entire program schedule. The researchers selected one station from each market and took measures from each of four large time blocks including 9:00AM – Noon, Noon – 3:00PM, Prime time, 2.5 hour block after the evening news. Nielsen adjusts the last two blocks for the local market. This protocol produced broad, across the schedule and across the country data.

The data collection steps were as follows:

1. Select a ratings book.
2. Check the time periods that will be used and note the stations with measurable ratings.
3. Randomly select one of the stations.
4. For the station selected, record household shares, cume and average quarter hour.
5. Compute turnover ratio.

Turnover goes up when you have few loyal viewers (repeated viewers) in your total audience. This study compares market penetration to a ratio of loyal viewers. According to the premise of this study, the composition of the audience (loyal versus non-loyal) directly affects the size of that audience.

By choosing only one station per market, the researchers create independent measures. If more than one station was chosen, shares from one station would affect the shares from another.

Results

The result of the data collection was 536 sets of turnover ratio / share measures for 134 markets (18 from markets 1-50, 50 from markets 51-100, 46 from markets 101- 150, and 20 from markets over 150).

The first step in defining a relationship, regression analysis, attempts to define a linear relationship between two data sets A simple

regression equation may define a straight-line relationship between variables. In this case, we might be looking for an equation like:

Share = A + (B * Turnover)

where both A and B will be determined by the regression procedure. First, a linear regression is presented in Table One. An acceptable regression equation (adjusted R^2 of 0.36 with a significance or F at 0.00) allows the rejection of the null hypotheses. The equation predicted by the regression equation would be:

Share = 7.8 + (-0.1 Turnover)

Table One

Linear Regression Turnover on Share

```
Multiple R            0.61
R Square              0.37
Adjusted R Square     0.37
Standard Error        8.54

Analysis of Variance:
                DF   Sum of Squares      Mean Square
Regression       1        22512.06         22512.06
Residuals      530        38678.63            72.98
F =     308.47501       Signif F =  .0000

Variables in the Equation
Variable             B      SE B    Beta       T     Sig T
TURNOVER         -2.83      0.16   -0.61   -17.56  .0000
(Constant)       31.71      1.00            31.77  .0000
```

BEST COPY AVAILABLE

Figure Two
Regression Curves
Turnover to Share

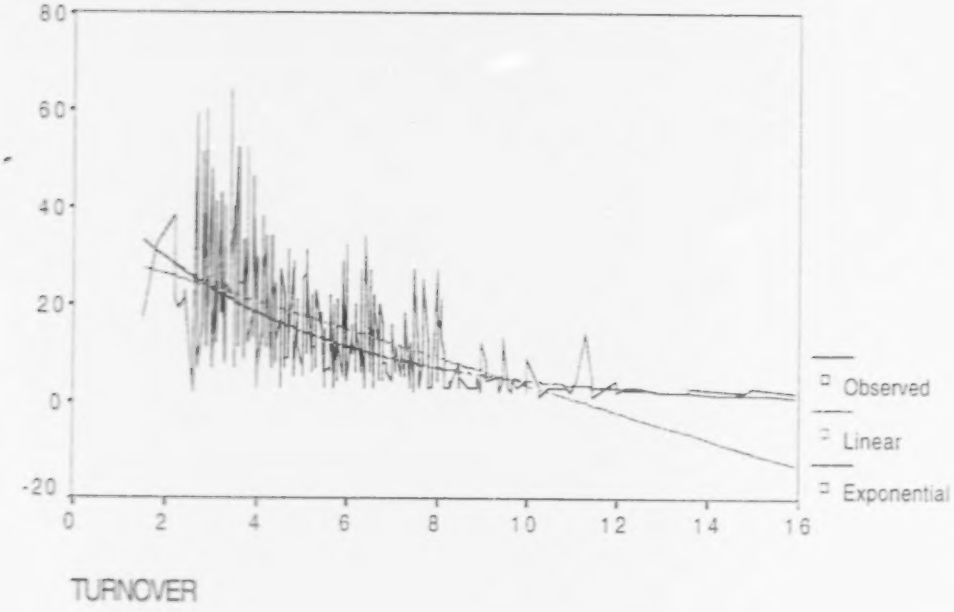


Table Two
Exponential Regression

Multiple R 0.71
R Square 0.51
Adjusted R Square 0.51
Standard Error 0.55

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	1	163.98	163.98
Residuals	530	157.97	0.30

F = 550.14 Signif F = 0.0000

Variables in the Equation

Variable	B	SE B	Beta	T	Sig T
TURNOVER	-0.24	0.01	-0.71	-23.46	0.0000
(Constant)	47.60	3.04		15.68	0.0000

The regression equation may also define other linear relationships that are more curved. Logically, as a station wins a larger share of the audience, the effect of turnover will start to diminish. The scattergram in Figure Two indicates such a curved effect and a curvilinear relationship. The exponential equation detailed in Table Two is even more powerful with an adjusted R^2 of 0.51 and F significance of 0.00.

The next worry is that of the validity of the regression equation. An analysis of the residuals of the regression equation indicates the presence of heteroscedasticity – a problem with the data that breaks the assumption of the regression procedure and limits its accuracy. Even the exponential equation above explained only half of the variance in share (as measured by R^2). While this still a very strong result, it is important to look at the remaining variation for patterns. An analysis of the unexplained variance (residuals) clearly indicates there is more variation at lower levels than high. The regression equation is less able to predict at lower levels than at higher levels. By definition, this is a problem called heteroscedasticity.

Heteroscedasticity may be controlled if you know what is causing it. The researchers do not know but theorize that heteroscedasticity is caused by the relative standard error in sample size. The smaller the sample (market size or rating) the larger the relative error. This theory is supported by the fact that further tests show heteroscedasticity in both share and turnover.

The procedure to correct the problem is beyond the scope of an exploratory study. Given that we have a very simple premise, the researchers choose to drop back to a simpler statistical method to support the findings of the regression. A Chi-square procedure was used to further test the hypothesis. Both turnover and share were reduced into two categories (low and high). The resultant chi-square (X^2 = 127.8) is summarized in Table Three. Again, the null hypothesis can be rejected. The chi-square supports the hypothesis of an inverse relationship between turnover and share.

Table Three

Chi-square Results

		Turnover		
	Count	Low	High	Total
Share	Low	48	204	252
	High	190	90	280
	Total	238	294	532

Chi-square = 127.8, df=1, Significance = 0.0

RQ1: Is turnover ratio affected by daypart?

To answer this question, the researchers performed a simple anova comparing the means of turnover by daypart. The first anova, comparing all four dayparts revealed a significant effect of daypart. However, looking at the means, researchers suspected the fourth daypart (2.5 hours after

evening news) had the biggest effect. A second anova was run comparing the means of the first three dayparts only. In this case, the data failed to support a significant difference.

Table Four

Anovas for Daypart

Groups	*Count*	*Sum*	*Average*	*Variance*
Daypart 1	133	740.3	5.6	5.9
Daypart 2	133	723.8	5.4	8.4
Daypart 3	133	771.8	5.8	4.0
Daypart 4	133	827.0	6.2	2.6

ANOVA: All Dayparts

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between	46.6	3	15.5	2.96	0.03	2.62
Within	2767.7	528	5.2			
Total	2814.3	531				

ANOVA Dayparts 1-3

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between	8.9	2	4.5	0.73	0.48	3.0
Within	2418.2	396	6.1			
Total	2427.1	398				

There are limitations to this study. Despite the national sample, stratification could have been more even. The researchers did not have access to enough books from the top fifty markets. Networks were not evenly sampled. It is doubtful ,however, that either market size or network affiliation would have made a substantial difference but subsequent studies should control these two factors.

Researchers considered looking at the effect of market size on turnover ratio. The argument would be that larger markets would have more broadcast stations and a resulting effect on turnover. However, if you remember that cable penetration goes up as market size goes down, the argument becomes convoluted. In addition, market size directly affects the inaccuracy introduced by heteroscedasticity (see discussion above). Larger markets are measured with larger samples resulting in lower relative error. The greater error in smaller markets creates more variation in both independent and dependant variables therefore reducing accuracy of the measure. A later study may look at the effect of market size specifically.

Because this is not a time-series analysis, the study can only support the notion of correlation not causation. The turnover to share model, as it is presented, predicts causation. The results support that theory but do not *prove* turnover causes share increases. A more lengthy discussion is included in the next section (see "chicken versus egg" discussion below).

The major limitation to interpretation of the data is heteroscedasticity. This study supports the hypothesis that there is a relationship between these two variables. The exact nature of that relationship is yet to be shown conclusively. However, the strength of the model and the results of the equation warrant further research.

Discussion

This study confirmed the existence of double jeopardy in television audience behavior in a more persuasive and relevant manner than prior studies. Although there is an obvious relationship between share and turnover (loyalty) there remains a sort of "chicken or egg" quandary of which causes what? Is loyalty a result of high share or visa versa? Statistically, share is driven by AQH audiences (presuming HUT levels don't change) which include *duplicated* viewers as well unduplicated audiences (i.e., cume). Audience duplication by definition means *repeat viewing*. Therefore a program's share performance is influenced by (a) the number of individuals who decide to watch and (b) how often they return to watch. In theory, a daily Monday through Friday program could generate the same average quarter hour share by either recruiting *new audiences* every night or *maintaining the same audience* every night. If the show recruits a new audience every night, the cume would be much higher than if it enjoyed the same audience each night.

The study supported the concept that turnover is affected by daypart. More specifically, late night viewers seem to exhibit higher turnover than others. A realistic conclusion is that people change viewing habits right before bedtime. However, a later study may take another look at daypart effect.

The crux of the "chicken or egg" problem is which of the two elements drive share. Cume is most sensitive to the large audience. AQH is most sensitive to viewer loyalty. Selecting only one variable (cume or AQH) as the main cause of high share may be simplistic. The two variables could very well interact with one another. Viewer loyalty encourages more viewers while a large audience may be the best source of loyal viewers.

In addition to theoretical and methodological factors, this study offers some practical insights for media professionals. By using Nielsen ratings data, the industry standard for buying and selling audiences, managers will find these findings more relevant to their everyday decision-making.

This study confirmed the applicability of a traditional measure of brand loyalty to the broadcasting industry. By use of this national sample, this study was able to demonstrate the effectiveness of the method and lay a path for more work in this area.

With some refinement and experience, turnover ratio can be a valuable and low cost measure for audience loyalty or brand equity. By computing turnover as done here, the managers can get a rough estimate that would cost much more through other methods.

References

Arbitron Methods. (1999). Arbitron Radio Description of Methodology. New York: Author.

Barwise, T. P., Ehrenberg, S. C. (1988). Television and Its Audience. London: Sage.

Barwise, T. P., Ehrenberg, S. C. (1987). The liking and viewing of regular television. Journal of Consumer Research, 14, 63-70.

Barwise, T. P. (1986). Repeat viewing of prime time series. Journal of Advertising Research, 26 (4), 9-14.

Cooper, R. (1996). The status and future of audience duplication research: an assessment of ratings-based theories of audience behavior. Journal of Broadcasting and Electronic Media, 40, 96 - 111.

Eastman, S. T., Ferguson, D. A. (1997). Broadcast/cable Programming: strategies and practices. Belmont, CA: Wadsworth.

Ehrenberg, S. C., Goodhart, G. J., Barwise, T. P. (1990). Double jeopardy revisited. Journal of Marketing, 54, 82-91.

Goodhart, G. J., Ehrenberg, A. S. C., Collins, M. A. (1987). The Television Audience. Patterns of Viewing. Westmead, UK: Gower.

Lehmann, d. r., Winer, R. S. (1994). Analysis for Marketing Planning. Burr Ridge, IL: Irwin

McPhee, W.N (1963). Formal Theories of Mass Behavior. Glencow, IL: The Free Press.

McDowell, W, Batten, A. (1999). Branding TV: Principles and Practices. Washington D.C: National Association of Broadcasters.

Nielsen Methods (1999). NSI Methodology, Techniques and Data Interpretation. (Nieslen Station Index Supplement). New York: Author.

Nielsen Report (1999). The television Audience 1999 (Nielsen Media Research Annual report. New York. Author.

Webster, J. G, Wang, T. (1992) Structural determinants of exposure to television: The case of repeat viewing. Journal of Broadcasting and Electronic Media. 125 - 135.

Webster, J. G., Lichty, L. W. (2000). Ratings Analysis: Theory and Practice. Hillsdale, NJ. Lawrence Erlbaum.

MMJE

Great Expectations:

Revealing a Placebo Effect in

Brand Equity Evaluations of Network News Reporting

Walter McDowell, Ph.D.

and

Steven J. Dick, Ph.D.

Southern Illinois University at Carbondale

College of Mass Communication and Media Arts

Department of Radio - Television

Carbondale, IL 62901

618 - 536 - 7555

mcdowell@siu.edu

sdick@siu.edu

Abstract

Great Expectations:

Revealing a Placebo Effect in

Brand Equity Evaluations of Network News Reporting

The purpose of this study was first to explore the theoretical common ground shared by the concepts of placebo effects and brand equity and then to introduce the notion of *media brand placebo effects* within the context of audience evaluations of television program content. A controlled experiment, focusing on the perceived credibility of a network news report, provided support for two out of three hypotheses derived from this proposed branding construct.

Great Expectations:
Revealing a Placebo Effect in
Brand Equity Evaluations of Network News Reporting

Introduction

Because of the way we compartmentalize scholarly research into mutually exclusive "pigeon holes" of learning, we do not recognize sometimes the fact that several disciplines may be operating in parallel, exploring the same topic but using different jargon. Philosopher and theorist Alan Garfinkel (1981) talks of social scientists becoming trapped in *explanatory frames*. He maintains that important developments in scientific knowledge often take the form, not of discoveries of new facts, but shifts in the conception of what constitutes a valid explanation. Along these same lines, business scholars Hargadon and Sutton (2000) propose building "innovation factories" where the emphasis is not so much on creating something totally new but rather taking developed ideas and applying them to new situations. One such area where a body of knowledge can be can reconceptualized is the study of audience expectations and how anticipated outcomes can distort objective reality. Researchers working in the disciplines of advertising, marketing, psychology, pharmacology and medicine have all encountered a kind of self-deception among patients and consumers where the evaluation of a product, service or medical treatment is moderated by *expected outcomes*. Even when the attributed product brand or prescribed

treatment is counterfeit, the reported outcome remains consistent with what is expected. Objective reality is displaced or distorted by anticipated results.

Among health researchers this phenomenon has been called the *placebo effect*. While marketing and advertising professionals have yet to come up with an exact terminology, the identical phenomenon has been incorporated under the rubric of *brand equity*. In both circumstances, controlled experiments (utilizing deception or "blind testing" procedures) are fashioned to reveal this behavior.

The overriding purpose of this study was first to explore the theoretical common ground shared by placebo effects and brand equity and then to introduce the notion of *media brand placebo effects* within the context of audience evaluations of television program content. A second purpose was to test empirically several hypotheses derived from this proposed construct, focusing on audience perceptions of a network news report.

While there is considerable literature on both brand equity and placebo effects, there has not been an attempt to synthesize the two concepts. As broadcasters and other electronic media professionals face increasing competition for the attention and loyalty of audiences, the body of academic knowledge addressing specifically media branding and media brand equity has grown steadily in recent years. By integrating the precepts of placebo effects with the study of media brand equity, the investigators hope to contribute new knowledge that can lead eventually to practical branding strategies.

Literature Review

The review of literature is organized in the following manner.

1. A brief overview of placebo effects as it has been found in clinical experiments.
2. A discussion of branding, brand equity and typical "blind testing" experiments.
3. A summary of the growing interest among broadcasters in brand marketing principles and strategies.
4. The introduction of the notion of media brand placebo effects and a discussion of several communication theories or approaches that offer plausible explanations of the phenomenon
5. The presentation of three hypotheses to test the above construct.

Placebo Effect

The placebo effect is not new to medical science. For centuries physicians and medical researchers have been aware of the powerful effect of *expected outcomes*. Recent studies have found placebos eliciting positive evaluations from 30 to 40 percent of patients suffering from a variety of illnesses. In many cases these results went beyond subjective perceptions and involved actual physiological changes (Talbot, 2000). In one of the definitive books on placebo effects, Spiro (1986) notes that there are two distinct ways in which placebos are used in medical practice; the first is in *therapy* and the second is in *research*. This paper addresses the latter situation where an inert substance or bogus treatment is used in controlled clinical experiments. Merely administering a drug or treatment to a group of subjects and recording their reactions are inadequate

procedures because many people will respond positively to any intervention. For these sensitized subjects, *anticipation* becomes a confounding variable that is identified most often as a placebo effect.

In psychological terms, one way to explain the placebo effect is to say that the subject disengages from the conventional ways of assessing an illness and opts for an unconscious shortcut where deliberation and rational analysis give way to a more simple belief in a predestined outcome. Furthermore, one successful outcome will encourage additional successful outcomes using the same medical intervention - even when the intervention is a placebo. While experiencing the drug or treatment, subjective perception supercedes objective "reality."

According to Spiro (1986), a highly controlled clinical trial exhibits the following essential features

1. Equivalent groups derived from random assignment
2. A single (or double) blind structure where the subjects are not aware of their treatment groups
3. Simultaneous administration of stimuli to all groups to control for extraneous variables
4. A large enough sample to generate statistical significance

This emphasis on expected outcomes can be found also in the study of consumer attitudes and behaviors towards brand names.

Brands and Brand Equity

A brand is a name, term, sign, design, or a unifying combination of them intended to identify and distinguish the product or service from its competitors. More importantly, brand names communicate attributes and meaning that are designed to enhance the value of a product beyond its functional value. (Keller,. 1998; de Chernatony & McDonald, 1998). Brand equity is essentially *a measure of this added value.*

Although there are dozens of definitions of brand equity offered by academia and the private sector, all experts would agree that brand equity stems from the added value a brand name contributes to a product's performance in the consumer marketplace. Strong brand equity is said to (a) reinforce consumer loyalty, (b) attract new customers, and (c) Insulate a product from competitive attack. The primary motivation for applying brand equity strategies to a consumer product or service is *competition*. As the number of similar products or services in the marketplace increases, the need for highly differentiated brands becomes more acute.

Because consumers often lack the motivation, capacity or opportunity to process all product information to which they are exposed in a thoughtful or deliberative manner, they opt for quick resolution techniques stored in memory (Kardes, 1994). Strong brands assist in this heuristic process. Beil (1991) offers the following insight.

> On a very practical level consumers like brands because they package meaning. They form a kind of shorthand that makes choice easier. They let one escape from a feature-by-feature analysis of category alternatives, and so, in a world where time is

> an ever-diminishing commodity, brands make it easier to store evaluations (p.6).

Strong brands also cultivate *habits*. Rosenstein & Grant (1997) maintain that In a repetitive decision-making situations, habits save time and reduce the mental effort of decision-making, thereby allowing us to maintain complex behavior patterns without becoming overwhelmed by a huge cognitive task load.

Keller (1998) conceptualizes brand equity according to two kinds of overall *brand knowledge*, namely brand *awareness and* brand *image*. Awareness deals with basic familiarity of a brand name while image addresses the various meanings associated with a brand name. Consumer attitudes, such as the degree of liking, are vital elements of this image construct. He conceptualizes brand equity as *the differential effect of brand knowledge on consumer response to the marketing of a brand.* Keller also asserts that "fundamentally high levels of brand knowledge (awareness and image) increase the probability of choice, as well as produce greater consumer loyalty and decrease vulnerability to competitive marketing actions" (p. 3).

From a behavioral viewpoint, Keller describes how these brand associations can be manifested in the marketplace behavior.

> A brand is said to have positive (negative) consumer-based brand equity if consumers react more (or less) favorably to the marketing mix of the brand than they do to the same marketing mix element when it is attributed to a fictitiously named or unnamed version of the product or service...If a brand is seen by customers to be the same as a prototypical version of the product or service in the category, their response should not differ from their response to a hypothetical product or service. If the brand has some salient, unique associations, these responses should differ. (p. 4)

Keller maintains that a product's brand equity influences the manner and degree of "consumer response" but consumer response can take many forms. Marketing and advertising experts often propose some type of hierarchy of consumer responses including factors such as *awareness, knowledge, imagery, preference, intent to buy*, and *actual purchase*, each representing a rung on a consumer response ladder (Wilkie, 1996). Our exploration of placebo effects is aimed at the very top rungs, where the consumer (or audience member) makes a purchase choice and actually experiences the brand first hand.

Blind -Testing as a Measure of Brand Equity

For decades market researchers have conducted "single blind" or "double blind" testing of all sorts of consumer products. From cigarettes and beer to perfume and vitamins, these researchers have become familiar with the implicit power of a brand name to influence people's evaluations of taste, smell and other performance measures.

Often, people cannot differentiate between brands unless a specific brand name is attributed to the product, and even then, the researchers can manipulate evaluations by switching brand labels. *Coke* and *Pepsi* drinkers have provided textbook cases studies where consumers claim to prefer one brand of soft drink over another but in a blind test situation are unable to differentiate the beverages by taste alone. Furthermore, when the respondents were given the identical beverage, researchers could manipulate taste evaluations by merely changing the brand labels (De Chernatony & McDonald (1998). Underlying all these blind

testing scenarios is the idea that the respondent is predisposed to an expected outcome. Consequently, the stronger the brand, the stronger the expectations. The ultimate rung of our brand equity ladder is the ability of a counterfeit brand to elicit the same performance evaluations as the genuine brand.

While not using the term placebo, these equity researchers have used the same experimental protocols as their counterparts in clinical trial research. The primary difference between the two approaches has been that where clinical researchers attempt to eliminate the placebo effect, brand researchers attempt to capture it. As more competitors enter an already crowded consumer marketplace, building and maintaining brand equity has become a major concern for many U.S companies (Brand study, 1999; Roberts, 1999)). And America's major media companies are experiencing the same pressures.

Broadcasting and Branding

Many companies in need of a complete brand makeover are hiring away top brand marketing executives from the highly competitive consumer packaged goods industry (Buss, 2000). Similarly, in an effort to cope with unprecedented competition, audience fragmentation, and declining market shares, broadcasters and cable operators have been eager to adopt the jargon, if not the substance, of brand management. For example, Carol Black president of the Lifetime cable network, and former general manager of Los Angeles television station KNBC, was hired originally from the brand marketing ranks of Proctor and Gable (McDowell & Batten, 1999; Dickey, 1994). As with conventional consumer brands, media brands are attempting to generate an "added value" that will set

them apart from their competitors and nurture audience loyalty. An editorial in Broadcasting and Cable, the magazine of record for the industry, stated that "*branding* is threatening to supplant 'synergy' or 'convergence' as the queen bee of TV buzzwords" (Editorial, 1998).

Exploring Media Brand Placebo Effect

If, indeed, the content of various types of electronic media can be conceptualized as brands, then perhaps, the above-mentioned placebo - brand equity phenomenon will also apply. Some appropriate research questions might be (a) Can an attributed brand name influence how an audience member evaluates the media content ? or (b) Can an audience member disengages from highly critical thinking and opts for a shortcut assessment based on simple brand preference? Several communication theories offer plausible explanations. Each provides a different approach or level or insight.

One long-established approach to understanding message reception and processing has been *consistency theory*. According to Littlejohn (1992), the most notable literature on this approach has been Festinger's work on the notion of *cognitive dissonance*. The underlying assumption to all consistency theory is that people desire consistency (or consonance) in the way they interpret their world and that information that is inconsistent (or dissonant) with prior beliefs or attitudes causes cognitive tension or stress. According to Festinger, sufficient cognitive dissonance will force a person to reduce this mental discomfort .One of the primary methods of reducing dissonance is to distort or reinterpret the information involved. Among psychologists, it is no secret that most people

succumb to *selective attention* and *selective interpretation* where information that is contrary to preconceived ideas will be ignored or rationalized to coincide better with prior notions (Fishbein & Ajzen, 1980).

Kardes (1994) in his work on human stereotyping, comments on how far people will go to discredit contrary evidence in order to maintain an entrenched belief. The researcher' concept of *attitude persistence* is similar to Festinger's ideas about maintaining internal consistency or consonance - regardless of the objective reality of the situation. From a mass media perspective, the reluctance of audiences to change attitudes is not new. In the 1960s, Bauer (1964) talked about the difficulties of dealing with the *obstinate audience* .

Of course the term consistency can be defined several ways. Pearson, Ross & Dawes (1994) found that a consistent response to a survey question could imply expected change as well as expected stability. Based on the results of several empirical studies dealing with people's recall of personal history, the researchers proposed that subjects invoked two types of implicit theories (a) theories of personal *stability*, where a person exaggerates the similarity of past and present or (b) theories of personal *change*, where a person exaggerates the amount of change that has occurred. Which theory is activated depends on expectations. That is, people will often report change if change is consistent with what is expected. For example, after experiencing a new type of school curriculum, students will report significant improvement (i.e., change) in learning skills, when in reality, standardized test scores reveal little or no improvement. It should be noted that at no time did these investigators presume that the subjects

were lying deliberately. On the contrary, the respondents believed that they were completely forthright and were shocked to see their mistakes.

From the vantagepoint of placebo effects, we can speculate that a person's belief in an expected result can be defined as (b) a desire to maintain a consistency between expectations and outcomes. If this person perceives a disparity between a medical intervention and its desired improvement, he or she may unconsciously claim a positive outcome in order to avoid cognitive dissonance. Whether consistency implies stability or change, objective reality gives way to perceptions of expected outcomes.

Uses and gratifications (U&G) is an audience-centered approach to the study of mass communication that proposes two interrelated variables (a) gratifications sought (GS) based on expectations about media content and (b) gratifications obtained (GO) which deal with perceived personal outcomes from experiencing this content. Additionally, there is a feedback mechanism where experience influences future expectations (Rubin, 1994). These two dimensions have been operationalized in myriad ways. For example, Palmgreen, Wenner, and Rayburn (1980) developed two 15-item scales to measure GS and GO from television news. Our placebo effect can be applied plausibly to the gratifications obtained portion of the structure where expectations become so high that measures of gratifications obtained (GO) are not necessarily an accurate reading of objective results. The desire for consistency between what is sought and what is eventually obtained intervenes in the evaluation process.

Another popular means of looking at message processing is in the arena of persuasion and the Elaboration Likelihood Model (ELM). Petty & Cacioppo (1986) profess that people process persuasive messages in one of two ways (a) a *central route*, where a person elaborates the issue by investing substantial critical thinking and (b) a *peripheral route*, where a person is influenced more by superficial factors that do not require extensive thinking. The likelihood of elaboration depends on two basic factors, motivation and ability. The degree of motivation is influenced by several factors, such as personal relevance. The ability to elaborate can be hampered by factors such as distractions, and convenience. When extensive elaboration (the central route) is considered inappropriate, people will look for relatively simple *peripheral cues* to help them make a decision. These cues can take several forms, such as the credibility of the source. Here is where branding can be introduced. A strong consumer brand name can be construed as a peripheral cue whereby the consumer disengages from extensive thinking and chooses the brand *automatically*. At an earlier time, the consumer may have invested considerable time and mental energy in evaluating a brand's performance, but once this assessment is completed, the results are stored in memory as a heuristic (i.e., shortcut) device for quick, tension-free decision-making.

Depending on the strength of brand equity, the consumer will be reluctant to elaborate on the preferred brand or elaborate on the functional attributes of competing brands. Market researchers know that brand loyalty is persistent. Borrowing terminology from our earlier discussion, we can postulate that the

peripheral cue of the *brand name* triggers recall of *gratifications obtained* from prior experience.

Based on our knowledge of blind-testing and placebo effects, we can expect consumer evaluations of preferred brands and competing brands to be compromised by the intervening variable of *expected outcomes*. Unless there is blatant contrary evidence, a preferred brand will be given automatic approval. Insightful, critical thinking will be displaced by abbreviated, shortcut message processing that favors the preferred brand.

We should not forget that this type of exaggeration could occur on the negative side too. That is, patients who are convinced that a medical intervention will not produce improvement will generally not report highly positive outcomes. Similarly, consumers who hold preexisting negative evaluations about a branded product or service will seldom change their minds and become converts . When studying the effects of brand equity or placebos, the cliché of a "self-fulfilling philosophy" is actually quite true.

Injecting the element of *repetition* will enhance all of the above theoretical explanations. The more positive experiences a person has with a medical intervention or consumer brand, the more ingrained the placebo effect will become. No introductory psychology course would be complete without an examination of *operant conditioning* where a specific response is associated repeatedly with a specific stimulus. Over time this *reinforcement* process strengthens the bond between stimulus and response. For example, if the repeated outcomes resulting from the use of a branded product are positive, the

likelihood of that consumer buying that brand again is increased (Wilkie, 1996). Similarly, in a medical setting, repeated positive outcomes resulting from the uses of a drug or treatment will encourage a patient to request additional prescriptions or treatment sessions. At the core of this habitual behavior are the overlapping notions of consistency and expected outcomes. Operant conditioning requires the same predictable outcome again and again. Eventually, all doubt, all forethought, all elaboration are dismantled.

Presuming media brands can be regarded in the same manner, observing a subject giving a superior performance evaluation to a counterfeit brand would operationalize a placebo effect. A starting point for the study of media branding is broadcast television news. Broadcast networks have worked hard to establish there brands and produce very similar products. As a result, this study proposes three hypotheses.

H1: If a news report is attributed to a person's preferred news network, that person is more likely to give the *overall* report a positive evaluation than if the same report were attributed to a non preferred news network.

H2: If a news reporter is attributed to a person's preferred news network, that person will give the *reporter* a better evaluation than if the same reporter were attributed to a non preferred news network.

H3: If a news story is attributed to a person's preferred news network, that person will give the *story* a better evaluation than if the same story were attributed to a non preferred news network.

The hypotheses follow the three main measures. First, The subjects were asked to give an overall (yes/no) evaluation (H1). Second, subjects were asked to consider the quality of the reporter (H2) and the story (H3) with a group of semantic differential scales.

Methods

Although a news report was chosen to be the test object for this experiment, the goal of this study was not to delve into matters of journalism, but rather to explore consumer-based media brand equity and the role of placebo effects.

There is an assumption that established measures of *news credibility* would offer circumstantial evidence of underlying brand equity

Every portion of the study was designed to get quick analysis. The researchers needed the subjects to respond to easily accessible brand images and not succumb to detailed elaboration

The general plan for the study was simple. Researchers distributed questionnaires to the subjects. The first page of the sealed survey solicited brand preference for network television news. A news story was shown to subjects without network attribution. Subjects were then asked to open the survey instrument. Subjects were told they had seen a report from one of the four networks (ABC, CBS, NBC, or CNN) and asked to evaluate the credibility of both the reporter and the story itself. Testing was simply a matter of comparing the evaluations of those that thought they had seen a report from their preferred network to those that thought they saw another network.

Instrument

The survey was a single blind instrument designed to (a) solicit network news brand preference and (b) solicit a evaluations of the perceived credibility of a news reporter and a specific international news story. The instrument was

designed for quick distribution and collection. Consistent with the guidelines of other consumer branding studies, the researchers did not want the subjects to invest a great deal of cognitive effort. Therefore both written and oral instructions asked "your first reaction." and "your opinion not an expert evaluation."

The survey instrument consisted of three components positioned within a folded and sealed 8.5 by 11-inch paper. The survey was sealed to prevent premature disclosure of certain sections of the survey. See Appendix A for example.

Part one was required university human subjects information (also available on a separate sheet for subjects to take home). Part two asked the subjects to rate each of the four network news sources on a five point Likert scale from "very bad" to "very good". Next, subjects were asked to identify the network they would use if they "wanted information on a current news story." Answers from these five questions were used to determine overall *brand preference*. Upon opening the seal, the subjects were informed about the supposed network source for a recent news report - ABC, CBS, NBC or CNN. Of course only the researchers knew that this news brand attribution varied from survey to survey.

The next set of questions solicited an evaluation of the news report. The first question simply asked "For the [Network] report you just witnessed, overall was it a good report?" Answers were limited to "yes and no." Subjects had a nearly even chance of getting one of the four networks. Survey distribution (see

below) slightly over-sampled CNN due to the popularity of the network with the demographic group.

Next, subjects were asked to evaluate the reporter using four semantic differential questions (five points per question) taken from an established Source Credibility Scale developed by McCroskey (1966). The reporter was evaluated for reliable/unreliable, qualified/unqualified, intelligent/unintelligent, and pleasant/unpleasant.

Finally, subjects were asked to evaluate the news story itself using four more semantic differential questions taken from an established News Credibility Scale developed by Gaziano and McGrath (1986). The story was evaluated for accurate/inaccurate, fair/unfair, complete/incomplete, and unbiased/biased.

A pretest of the questionnaire revealed some problems with recognition of the source network. As a result, the researchers added in bold capital letters the network identity to each set of questions.

Condition

Researchers seriously considered news story choice. It had to be network quality, and yet free of any network identification (visual or aural), somewhat topical and hopefully, controversial. A local ABC affiliate agreed to record a closed circuit feed of random news stories. On the first try four stories were considered but rejected by a panel of faculty. A second set of four stories contained an acceptable story concerning events in the Middle East.

Distribution

The survey was administered in one day to 349 undergraduate students in two large lecture classes. The researchers recognize that this narrow demographic group limits generalizability but it can be argued that a large homogenous group is ideal for early theory testing by reducing extraneous variables.

In this experimental study, the *treatment* can be defined as the network designated by the survey instrument. Therefore the study consisted of four such treatments. To reduce the chance that subjects would become aware of the treatments, the researchers did two things. First, subjects were led to believe that the survey had to be done quickly to make time for the rest of the class. This step encouraged natural responses to brand imagery rather than close scrutiny. Second, treatments were distributed in large blocks in within the rooms so that "neighbors" in adjacent seating all had surveys with the same network attribution. When distributing the surveys, researchers looked for natural breaks, such as isles, whenever possible. Several graduate assistants were available to answer questions and prevent subjects from asking questions across the room. The sealed survey kept the exposure of the treatment down to a minimum.

After the surveys were collected, researchers debriefed the subjects. During the explanation, an interesting event occurred. One subject claimed to be able to tell it was a CBS report (his treatment condition) because of "the camera angles" used in the video.

Data preparation

Surveys were filtered in two ways. The first step was to eliminate obvious errors, refused, and those that preferred other news sources. The second step was to eliminate those participants who did not have a clear news preference. Surveys were eliminated if any of the following conditions were met:

1. No news source was rated positively (good or very good) on the Likert scale.
2. More than two news sources tied on the Likert scales.
3. Likert rating disagreed with the absolute choice question.
4. Subjects chose more than one network for the absolute choice question.

Out of the 349 surveys collected, 29 were eliminated in step one and 107 were eliminated in step two. If the survey was not eliminated, there was a reasonable chance the subject had a brand preference.

Results

For all three hypotheses, researchers needed to determine if the subject thought they viewed their preferred brand (Got net = yes/no). A combination of brand preference and treatment condition determined this variable.

H1: If a news report is attributed to a person's preferred news network, that person is more likely to give the *overall* report a positive evaluation than if the same report were attributed to a non preferred news network.

Hypothesis one required a chi-square – "Got net" versus "Liked report." The absolute (yes/no) question from the evaluation determined the second variable. In this case, the computed chi-square equaled 4.37. With one degree

of freedom, it was significant at the 0.05 level. The negative hypotheses for H1 could be rejected.

Table One
Got Net v. Liked Report

		Got net: Yes Observed	Yes Expected	No Observed	No Expected	
Liked Report	Yes	**45** 21%	38.5	**94** 44%	100.5	139
	No	**14** 7%	20.5	**60** 28%	53.5	74
		59		154		213

chi-square = 4.37, Significance < 0.05

A t-test was used to test the second an third hypotheses. The group was still divided by "Got net". For these two hypotheses, composite variables were created from the four (each) semantic differentials for the reporter and the story. By adding the five levels together, a scale from four to twenty resulted. Hypotheses two and three suggest a one tailed test. For these two hypotheses, the groups are not even. Out of the four networks, there is approximately a 25% chance that the subject received their favorite network.

H2: If a news reporter is attributed to a person's preferred news network, that person will give the *reporter* a better evaluation than if the same reporter were attributed to a non preferred news network.

Table Two summarizes the results of the first t-test. The mean evaluation of those who got their favorite network as the treatment was 15.3 compared to a 14.3 for the others. The t-statistic (2.2) was significant at the 0.01 level of probability. The null for hypotheses two was rejected.

Table Two
t-Test for the reporter

Got Net?	*Yes*	*No*
Mean	15.33	14.26
Variance	9.33	9.88
Observations	57.00	151.00
t Statistic	2.20	
P(T<=t) one-tail	0.01	
t Critical (0.05) one-tail	1.65	

H3: If a news story is attributed to a person's preferred news network, that person will give the *story* a better evaluation than if the same story were attributed to a non preferred news network.

Table Three summarizes the results for hypothesis three. While the subjects that got their favorite network rated the story higher (13.7 versus 12.9), the t-statistic (1.39) was only significant at the 0.08 level of probability. In this case the null is rejected. The researchers recognize that probabilities ≥ 0.10 sometimes acceptable but, in a very homogeneous data set, caution is warranted. However, the results merit further investigation.

Table Three
t-Test for the story

Got Net?	*Yes*	*No*
Mean	13.72	12.90
Variance	16.13	13.67
Observations	57.00	152.00
t Stat	1.39	
P(T<=t) one-tail	0.08	
t Critical (0.05) one-tail	1.65	

Discussion

As mentioned in the introduction, new ideas are seldom born in a vacuum. Instead, they are generated usually by somebody taking an established notion

and applying a different frame of reference. In this case, the investigators borrowed a psychological concept that for decades has been assimilated into the vocabulary of medicine. By synthesizing the essential components of placebo effects, communication processing theory, blind brand-testing techniques and consumer brand equity definitions, the investigators explored a new way to evaluate the strength of a media brand.

The results suggest that in an experimental blind testing situation, a placebo effect can be generated by merely manipulating the media brand names - at least for a TV network news report . The effect was seen in both the absolute yes/no question and, to a lesser extent, in more evaluative questions.

Hypothesis one gave the subjects a straight choice similar to a channel choice decision. The results support the placebo effect. Subjects who thought they viewed their favorite network were more likely to evaluate the report positively.

Hypothesis two was also supported by the data. The good feeling the subjects had for the network seemed to be transferred to the reporter.

However, hypothesis three was, at best, weakly supported. Why were the subjects less enthusiastic about the story than the reporter? The only clue came from the debriefing session. When the discussion turned to story quality, several subjects wanted to discuss the views of people within the story. Many seemed less interested in quality of the story. It suggests the possibility that subjects had trouble distinguishing between the journalism and the topic of the journalism.

This study was designed to help build and test theory used in other fields. generalizability was not the primary goal. Future studies should take a broader sample, providing more external validity. Another limitation was that this study focused exclusively on news reporting. This same placebo effect may or may not extend to other media and program genres.

On a more practical level, this one study has some disturbing implications for television news executives. The media brand placebo effect revealed in this study suggests that news audiences can be predisposed to assigning levels of credibility to a source long before a story is actually broadcast and evaluated by an audience. For a struggling news operation, this audience bias can lead to much frustration in that the "leading brand" is given high grades by default. As discussed, in the literature review, persuading audiences to reconsider their established brand evaluations is a daunting task and this is no less true within the domain of media brand consumption. What makes the task of changing a person's news brand preference so challenging is that a placebo effect can intervene in the judgement process. For example, by certain "objective" standards, a news report or program may be far superior than that of a competitor but loyal audiences for the competing brand will deceive themselves into perceiving just the opposite. Rational "proof" of exceptional performance becomes a matter not only of experiencing the program content but also of expectations already embedded in the minds of the audience.

The authors recommend that within conventional hierarchies of brand equity measures, such as awareness, knowledge, image, preference and

intention to buy, a new *placebo effect* measure be added at the very top of the equity ladder. This phenomenon where *nothing turns out to be something after all* is worthy of future media research.

References

Baur, R. (1964). The Obstinate Audience: The Influence process from the point of view of social communications. American Psychologist. 19, 319 - 328.

Biel, A. L. (*1991). How brand image drives brand equity. Journal of Advertising Research, 6, RC6-RC 12.

Brand Study (1999, October). Study: Branding Gains Importance. Brand Marketing. p. 12.

Buss, D. (2000, January). Brand Builders Turn to CPG Executives. Brand Marketing. p.2

De Chernatony, I., McDonald, M. (1998). Creating Powerful Brands in Consumer, Service and Industrial Brands. Oxford UK: Butterworth Heinman.

Editorial (1998, June 22). The Right Idea. Editorial in Broadcasting and Cable, p. 82.

Dickey, L. (1994). The Franchise, Building Radio Brands. Washington D.C: National Association of Broadcasters.

Fishbein, M., Ajzen, I. (1980). Understanding Attitudes and Predicting Social Behavior. Englewood Cliffs, NJ: Prentice Hall.

Littlejohn, S. W.(1992). Chapter 7, Theories of Message Reception and Processing in Theories of Human Communication. Belmont, CA: Wadsworth.

Garfinkel, A. (1981). Forms of Explanation, Rethinking the Questions in Social Theory. New Haven, CT: Yale University Press.

Gaziano, C., McGrath, K (1986) Measuring the concept of credibility. Journalism Quarterly, 63, 451-462.

Hargadon, A., Sutton. (2000, Spring). Building an Innovation Factory. Harvard Business Review, p. 57.

Keller, K. L. (1998). Strategic Brand Management, Building, Measuring, and Managing Brand Equity. Upper Saddle River, NJ: Prentice Hall.

Kardes, F. R. (1994). Consumer Judgment and Decision Processes , chapter 8 in Wyer & Srull, Handbook of Social Cognition (2 ed.), Hillsdale, NJ: Erlbaum,

McCrosey, J. C. (1966), Scales for the measurement of ethos, Speech Monographs, 33, 65-72.

McDowell, W., Batten, A. (1999). Branding TV, Principles and Practices. Washington D.C: National Association of Broadcasters.

Palmgreen, P., Wenner, L. A., & Rayburn, J. D. (1980). Relations between gratifications sought and obtained. A study of television news. Communication Research, 7, 161 - 192

Person, R. W., Ross, M., Dawes, R. M. (1992). Personal Recall and the limits of Retrospective Questions in Surveys, chapter 4 In Tanur, J. M. Questions About Questions, Inquiries into the Cognitive Bases of Surveys. Russell Sage: New York.

Petty, R. E. , Cacioppo, J. T. (1986). Communication and Persuasion: Central and Peripheral Routes to Attitude Change. New York: Springer-Verlag.

Roberts, K. (1999, November 29). Brand Identity 2000: Redefining the World. Advertising Age. p. 50.

Rosenstein, A. W., Grant, A.E. (1997). Reconcepualizing the role of habit: A new model of television audience activity. Journal of Broadcasting and Electronic Media, 41, 324 - 344.

Rubin, A. M. (1994). Chapter 14, Media Uses and Effects, A Uses and Gratifications Perspective in Bryant, J., Zillman, D. Media Effects, Advances in Theory and Research. Hillsdale, NJ: Lawrence Erlbaum.

Spiro, H. M. (1986).Doctors, Patients, and Placebos. New Haven, CT: Yale University Press.

Talbot, M. (2000, January 9). The Placebo Prescription. New York Times Magazine. p. 34

Wilkie , W. L. (1996). Consumer Behavior. New York: John Wiley & Sons.

Please answer the following questions to the best of your ability.
We are interested in YOUR OPINION not an expert evaluation
Please just give us your FIRST REACTION.

For the CBS report you just witnessed.
Overall, was it a good report?

Yes: _____

No: _____

Please rate this CBS REPORTER for the following.
Place an "X" in the best space to represent the strength of your opinion.

Reliable : _____ : _____ : _____ : _____ : _____ : Unreliable

Qualified : _____ : _____ : _____ : _____ : _____ : Unqualified

Intelligent : _____ : _____ : _____ : _____ : _____ : Unintelligent

Pleasant : _____ : _____ : _____ : _____ : _____ : Unpleasent

Please rate this CBS STORY for the following:
Place an "X" in the best space to represent the strength of your opinion.

Accurate : _____ : _____ : _____ : _____ : _____ : Inaccurate

Fair : _____ : _____ : _____ : _____ : _____ : Unfair

Complete : _____ : _____ : _____ : _____ : _____ : Incomplete

Unbiased : _____ : _____ : _____ : _____ : _____ : Biased

News Study

Please answer the following questions to the best of your ability.
We are interested in YOUR OPINION not an expert evaluation
Please just give us your FIRST REACTION.

Please rate the following news services from very good to very bad by placing a check mark in the most appropriate space.

ABC News	NBC News
____ Very Good	____ Very Good
____ Good	____ Good
____ No Opinion	____ No Opinion
____ Bad	____ Bad
____ Very Bad	____ Very Bad
CBS News	**CNN News**
____ Very Good	____ Very Good
____ Good	____ Good
____ No Opinion	____ No Opinion
____ Bad	____ Bad
____ Very Bad	____ Very Bad

If something happens and you want to know about it, which news service would you choose?

ABC: ____ CBS: ____ NBC: ____ CNN: ____

Other: ____ None

Television News Study

Professors Walter McDowell and Steven Dick of the College of Mass Communication and Media Arts (Radio - Television Department) at Southern Illinois University are conducting a research study to determine students' TV *news source preferences* for national and world news.

- Individual responses to the survey questions will be *anonymous* and therefore, will have no influence on your course grade.
- Estimated time to participate in the survey should be no more than 15 minutes.
- The researchers supervising this study can be reached at the SIUC Radio-Television Department at (618) 536-7555.
- This project has been reviewed and approved by the SIUC Human Subjects Committee. Questions concerning your rights as a participant in this research may be addressed to Committee Chairperson, Office of Research Development and Administration, Southern Illinois University, Carbondale, Illinois 62901-4709. Phone: (618) 453-4543.
- Completion of this survey indicates *voluntary consent* to participate in this study.
- Extra copies of this information sheet will be available in the front of the room if you wish to take a copy with you.

BEST COPY AVAILABLE